



How can a location-based digital platform support the coordination of shared sports activities while enabling a sustainable platform-based business model in urban environments?

Leandro Kuckherm

Dissertation written under the supervision of Professor
Rute Xavier

Dissertation submitted in partial fulfilment of requirements for the MSc in
Strategy, Entrepreneurship and Impact at the Universidade Católica Portuguesa,
27.05.2026

Abstract

ENG

This thesis examines how a location-based digital platform can support the coordination of shared sports activities while enabling a sustainable platform-based business model in urban environments. Drawing on digital platform theory, technology acceptance models, sports participation research, and platform business model frameworks, a sequential mixed methods approach was applied combining a secondary data-based market and competitor analysis, ten semi-structured interviews with urban sports practitioners, and a quantitative survey of 255 respondents. The market analysis identified a structural gap in the existing landscape of sports coordination platforms, with no current solution simultaneously addressing the social and coordinative dimensions of shared outdoor sports participation. Qualitative findings revealed that coordination overhead, pace and schedule mismatch, social barriers, and safety concerns represent the primary obstacles to shared sports engagement, while user needs center on social connection, reliability, personal control, and coordination simplicity. The quantitative analysis confirmed that Perceived Usefulness is the dominant predictor of behavioral intention to use the platform ($\beta=0.637$, $p<0.001$), followed by Trust as a meaningful secondary driver ($\beta=0.116$, $p=0.030$). Feature preferences converged on the Live Map and Swipe feature as the most valued core functionalities, supported by a rating system and route privacy controls as trust-enabling components. A freemium business model with a geographically focused launch strategy is recommended, prioritizing local user density before scaling. The findings contribute to research on digital platform adoption in socially embedded consumer contexts and provide actionable insights for the design and commercialization of location-based sports coordination platforms.

PT

Esta dissertação examina de que forma uma plataforma digital baseada em localização pode apoiar a coordenação de atividades desportivas partilhadas, permitindo um modelo de negócio sustentável em ambientes urbanos. Foi aplicada uma abordagem de métodos mistos sequenciais, combinando uma análise de mercado baseada em dados secundários, dez entrevistas semiestruturadas com praticantes de desporto urbano e um inquérito quantitativo a 255 participantes. A análise de mercado identificou uma lacuna estrutural no panorama existente, não existindo nenhuma solução que responda simultaneamente às dimensões social e coordenativa da participação desportiva partilhada. Os resultados qualitativos

revelaram que o esforço de coordenação, a incompatibilidade de ritmo, as barreiras sociais e as preocupações com a segurança constituem os principais obstáculos, enquanto as necessidades dos utilizadores se centram na ligação social, fiabilidade, controlo pessoal e simplicidade. A análise quantitativa confirmou que a Utilidade Percebida é o preditor dominante da intenção comportamental, seguida pela Confiança como fator secundário significativo. As preferências convergiram no Mapa em Tempo Real e na funcionalidade de Swipe, apoiadas por um sistema de avaliação e controlos de privacidade de percurso. Recomenda-se um modelo freemium com uma estratégia de lançamento geograficamente focada, priorizando a densidade de utilizadores locais. Os resultados contribuem para a investigação sobre a adoção de plataformas digitais em contextos socialmente integrados e fornecem orientações práticas para o design e comercialização de plataformas de coordenação desportiva baseadas em localização.

Author: Leandro Kuckherm

Title: How can a location-based digital platform support the coordination of shared sports activities while enabling a sustainable platform-based business model in urban environments?

Keywords: Location-based platform, sports coordination, peer-to-peer, technology acceptance, perceived usefulness, trust, network effects, freemium, urban sports, platform business model

I. Table of Content

II. LIST OF FIGURES.....	6
III. TABLE OF ABBREVIATIONS.....	6
1. INTRODUCTION.....	7
1.1 PROBLEM CONTEXT AND RESEARCH QUESTIONS	8
1.2 ACADEMIC AND PRACTICAL RELEVANCE OF THE STUDY	9
1.3 STRUCTURE OF THE THESIS.....	10
2. LITERATURE REVIEW	11
2.1 DIGITAL PLATFORMS & TWO-SIDED MARKETS.....	11
2.2 TECHNOLOGY ADOPTION.....	12
2.3 SPORTS PARTICIPATION & SOCIAL FACTORS	14
2.4 PLATFORM BUSINESS MODELS	15
3. METHODOLOGY	17
3.1 RESEARCH DESIGN.....	17
3.2 COMPETITOR ANALYSIS.....	17
3.3 QUALITATIVE STUDY - SEMI-STRUCTURED INTERVIEWS.....	18
3.3.1 <i>Ethical Considerations</i>	19
3.4 QUANTITATIVE STUDY - SURVEY	20
4. DATA ANALYSIS.....	21
4.1 MARKET RESEARCH & COMPETITOR OVERVIEW.....	21
4.2 QUALITATIVE FINDINGS - SEMI-STRUCTURED INTERVIEWS	24
4.2.1 <i>Interview Sample Description</i>	25
4.2.2 <i>Overview of Emergent Themes</i>	26
4.2.3 <i>Pain Points & Barriers to Shared Sports Participation</i>	27
4.2.4 <i>User Needs & Values</i>	28
4.2.5 <i>Desired Platform Features</i>	29
4.2.6 <i>Platform Adoption Intent & Trust Conditions</i>	30
4.3 QUANTITATIVE FINDINGS - SURVEY RESULTS.....	31
4.3.1 <i>Descriptive Statistics</i>	31
4.3.2 <i>Regression Analysis & Key Drivers of Adoption</i>	33
5. DISCUSSION	36
5.1 QUALITATIVE FINDINGS IN RELATION TO THE THEORETICAL FRAMEWORK.....	36
5.2 QUANTITATIVE FINDINGS IN RELATION TO THE THEORETICAL FRAMEWORK	37
5.3 IMPLICATIONS FOR PLATFORM DESIGN.....	38
5.4 IMPLICATIONS FOR BUSINESS MODEL DEVELOPMENT.....	39
5.5 LIMITATIONS.....	40

6. CONCLUSION	41
IV. BIBLIOGRAPHY	43
V. APPENDIX A: SEMI-STRUCTURED INTERVIEW GUIDE.....	46
VI. APPENDIX B: CODING TREE, SOURCE: INTERVIEW DATA & LITERATURE REVIEW	50
VII. APPENDIX C: INTERVIEW SAMPLE SUMMARY TABLE, SOURCE: INTERVIEW DATA	52
VIII. APPENDIX D: SURVEY QUESTIONNAIRE	53
IX. APPENDIX E: REGRESSION RESULTS - KEY DRIVERS OF BEHAVIORAL INTENTION TO USE ROAM.....	59

II. List of Figures

<i>Figure 1: Competitor Feature Comparison, Source: Own illustration based on Business of Apps (2026), Grand View Re-search (2025), and own market analysis.....</i>	<i>22</i>
<i>Figure 2: Perceptual Map, Source: Own illustration based on competitor feature assessment in Figure 1.....</i>	<i>24</i>

III. Table of Abbreviations

Technology Acceptance Model	TAM
Unified Theory of Acceptance and Use of Technology	UTAUT
Perceived Usefulness	PU
Perceived Ease of Use	PEOU
Social Influence	SI
Behavioral Intention	BI
Standard Deviation	SD
Mean	M
Standard Error	SE
Peer-to-Peer	P2P
Research Question	RQ

1. Introduction

Platforms have emerged as an important mechanism for coordinating interaction between users in a wide set of industries. Platform-based markets are markets that bring together different groups of users and enable the exchange of services, information and transactions through digital infrastructures (Rochet & Tirole, 2003; Rysman, 2009). Digital platforms, in contrast to traditional market structures, are often two-sided markets where the value is created through the interaction between different groups of users (Rochet & Tirole, 2003). The success of such platforms is driven by network effects, i.e., the value of the platform increases with the number of users (Rysman, 2009). Recent research also highlights the operation of digital platforms in broader ecosystems of multiple actors interacting and exchanging value. Platforms are key to coordinating the interactions among participants and to enabling new kinds of digital services (Jacobides et al., 2018) in such ecosystems. Moreover, studies on digital platform organizations show that coordination mechanisms are central to how platforms manage interaction and create value for their participants (Leong et al., 2024). These mechanisms have disrupted many industries including the transportation, accommodation and social networking industries. Comparable digital technologies are increasingly being used in the realm of sports and physical activity as well.

With the rapid development of digital technology, the engagement in sport and physical activity has become an important topic of public health and social research. Regular physical activity is of great importance for physical and psychological well-being and has been associated with health and social benefits (Eime et al., 2013). At the same time, digital technologies have been increasingly integrated into sports and fitness activities. Individuals can use smartphones and mobile apps to monitor their physical activity, track performance measures, and receive feedback on their exercise behavior (Bort-Roig et al., 2014). Fitness and activity-tracking applications have become an increasingly popular means to support sports participation. Many mobile applications include functions such as activity tracking, goal setting and personalized feedback that are designed to motivate users for physical activity (Middelweerd et al., 2014). More generally, the use of smartphone technology is also increasingly shaping how physical activity and sports behaviors are tracked and analyzed (Bort-Roig et al., 2014). While the number of digital fitness technologies is growing, existing apps primarily offer personal self-monitoring features such as activity tracking, performance feedback, and goal setting, with social and coordinative functionalities remaining limited (Bort-Roig et al., 2014; Fanning et al., 2012; Middelweerd et al., 2014).

At the same time, taking part in sport and physical activity is shaped by a range of social and environmental factors. Physical activity behavior is not only determined by individual motivation, but also by contextual and social influences (Bauman et al., 2012). One of the important factors that may positively influence participation in physical activity has been identified as social support (Bauman et al., 2012). Moreover, participation in sport can provide important social benefits such as opportunities for social interaction, community building and a sense of belonging (Eime et al., 2013). Research also suggests, however, that participation in physical activity can be limited by a range of psychological, social and environmental factors which act as barriers to participation (Bauman et al., 2012). The existing evidence indicates that digital technologies are becoming more influential in the promotion of physical activity and sport participation. At the same time, many existing fitness apps are focused on tracking individual performance and monitoring exercise behavior. However, the potential of digital platforms to enable coordination of sports activities among individuals has comparatively received less attention. The present study is driven by this gap and investigates how a location-based digital platform can be designed to facilitate the coordination of shared sports activities in urban settings. The concept is based on two main features. With the Live Map feature, users can track when an approved contact is active nearby in real time and spontaneously join them, somewhat like location-sharing services, but for sports coordination. With the Swipe feature, users can browse available activities in the surrounding area and express interest in meeting new activity partners through a matching mechanism. Activity creators have two options: an open setting, letting others join directly, or a closed setting, where the creator must approve a request before sharing the exact route. The platform also features a built-in rating system to develop credibility over time, building trust between participants who are strangers to each other beforehand. It is mainly designed as a peer-to-peer coordination tool connecting individual sports practitioners and thus works rather like a one-sided market. At present, the focus is on direct user value in a peer-to-peer sports coordination context but strategic extensions such as partnerships with sports clubs, brands or employers and sustainability-oriented features may be explored as future developments.

1.1 Problem Context and Research Questions

Against this background, this thesis addresses the following research question: "How can a location-based digital platform support the coordination of shared sports activities while enabling a sustainable platform-based business model in urban environments?". To further explore this question, two sub-research questions are formulated:

1. Which theoretical concepts and existing research insights are relevant for designing a location-based digital platform that connects individuals for shared outdoor sports activities?
2. How can the market for sports coordination platforms be characterized in terms of existing solutions and substitutes, and which user needs, perceived barriers, and desired platform features must be considered to develop and evaluate such a platform concept?

To address these questions, the thesis combines an empirical investigation with literature-based analysis. The literature review reveals the relevant theoretical perspectives related to digital platforms, technology adoption, sports participation and business model development. Additionally, empirical data were collected through secondary data-based market and competitor analysis, semi-structured interviews and a survey-based quantitative study to gain a better understanding of the competitive landscape, user needs, perceived barriers and desired platform functionalities.

1.2 Academic and Practical Relevance of the Study

This thesis contributes to the theoretical and practical discussions of digital platforms, sports participation, and digital service innovation. From a theoretical point of view, existing research on digital platforms is extended by examining their potential to enable coordination in the context of sports activities. Many digital sports technologies are primarily designed to monitor individual performance and track activity, but less attention has been paid to how digital platforms can facilitate interaction and coordination between people who want to engage in sports together. Building on research on digital platforms, technology adoption literature and sports participation research, a better understanding of how digital technologies can enable new forms of interaction in physical activity contexts is developed. Specifically, social factors and user motivations in the adoption and usage of digital sports platforms are highlighted as key determinants. Additionally, platform-based business model discussions are extended by exploring how digital platforms in the sports domain can generate sustainable value through the coordinated interaction of users.

From a practical perspective, the research seeks to offer insights that can contribute to the development of digital platforms connecting people to engage in sports activities together. The findings could help identify relevant user needs, platform features and potential value propositions for such services. These insights may be particularly relevant for entrepreneurs, digital platform developers and organizations interested in promoting sports participation through digital solutions.

1.3 Structure of the Thesis

The following chapters are organized as follows. Chapter two presents the literature review and discusses relevant research on digital platform ecosystems, technology adoption, sports participation, and platform-based business models. This chapter presents the theoretical basis of the study. Chapter three describes the research methodology applied in this thesis, including the research design, data collection methods, and analytical approach used in the empirical investigation. Chapter four presents the data analysis, beginning with a market research and competitor overview, followed by the qualitative findings from the semi-structured interviews and the quantitative findings from the survey, focusing on user needs, perceived barriers, and desired platform features. Chapter five discusses the findings in relation to the theoretical framework, outlines implications for platform design and business model development, and addresses the limitations of the study. Finally, chapter six summarizes the main findings and suggests potential directions for future research.

2. Literature Review

This literature review is grounded on four bodies of literature. The first one relates to digital platforms, more specifically the role of network effects and market structure in the dynamics of platforms (Rochet & Tirole, 2003; Rysman, 2009). The second one refers to the technology adoption and questions the way and the reason users adopt new digital services (Davis, 1989; Venkatesh et al., 2003). The third relates to participation in sport and the social factors that influence physical activity behavior (Bauman et al., 2012; Eime et al., 2013). The fourth deals with platform-based business models and how digital platforms generate and capture value over time (Teece, 2010; Zott et al., 2011). Taken together, these four areas provide the conceptual framework to address the research questions guiding this thesis.

2.1 Digital Platforms & Two-Sided Markets

In the present economy, digital platforms have become a basic mode of organization. Digital platforms can enable interactions between different user groups through shared digital infrastructures (Rochet & Tirole, 2003). Traditional pipeline businesses create and deliver value in a linear fashion. Platforms enable exchanges between different groups of participants, creating value through the interactions that occur between them (Rysman, 2009). Platform markets represent a particular type of two-sided markets, in which an intermediary connects two or more different user groups that would not be able to interact in the way they do without the intermediary (Rochet & Tirole, 2003). The platform is itself a coordination mechanism that sets the rules and conditions for these interactions. This coordinating role is not only technical but also organizational. Platforms must actively steer the incentives, behaviors and expectations of their user groups to sustain engagement and generate value (Leong et al., 2024).

A key feature of digital platforms is network effects, meaning that the value of a platform increases with the number of participants (Rysman, 2009). Network effects can be direct or indirect. Direct network effects occur when users receive value directly from other users on the same side of the platform. Indirect network effects happen when growth on one side of the platform increases value to users on the other side (Katz & Shapiro, 1985). These dynamics generate self-reinforcing growth cycles that make the platform more attractive as it scales, while creating significant entry barriers to new competitors (Rysman, 2009). Network effects are especially important for a sports coordination platform: the more users in a particular geographical area, the higher the chances that a particular user will find a suitable activity partner at a suitable time and place. Local user density is therefore one key success factor for such a platform.

Platforms are embedded in broader ecosystem contexts in which multiple actors including complementors, suppliers and customers interact and co-create value (Jacobides et al., 2018), beyond individual platform interactions. Here, platforms act as central coordinators in the ecosystem and enable new forms of value creation beyond just one-to-one transactions. The design of coordination mechanisms is central to how platforms handle these complex interactions and sustain value creation for their participants over time (Leong et al., 2024).

An important distinction in platform theory concerns platform type and market structure. Transaction platforms are used to facilitate the transaction of existing goods or services between the sides, while innovation platforms generate value by enabling third parties to develop complementary innovations (Gawer, 2021). The platform discussed in this thesis is most similar to a transaction platform, as it allows for peer-to-peer coordination between individual sports practitioners as opposed to complementary innovation and thus more similar to a one-sided market structure. The two-sided market model linking two fundamentally different groups of users is followed by many well-known digital platforms, but this is not a universal truth for all platforms (Rochet & Tirole, 2003). However, the market structures of platforms are not fixed and may evolve to more complex multi-sided market structures as they grow (Rochet & Tirole, 2003; Rysman, 2009). Future directions for the platform may include strategic extensions such as partnerships with sports clubs, brands or employers which could help the platform develop characteristics more closely associated with two-sided market structures.

2.2 Technology Adoption

Understanding why and how individuals decide to adopt new digital technologies is central to the design and evaluation of platform-based services. One of the most widely applied theoretical frameworks for explaining user acceptance of information technology is the Technology Acceptance Model (TAM), which posits that two primary beliefs determine an individual's intention to use a new technology: perceived usefulness and perceived ease of use (Davis, 1989). Perceived usefulness refers to the degree to which a person believes that using the technology will enhance their performance, while perceived ease of use captures the degree to which the technology is perceived as free of effort (Davis, 1989). These two constructs are the most significant determinants of behavioral intention to use a system, which in turn predicts actual technology use (Davis, 1989).

Recognizing that TAM's original formulation did not sufficiently account for social influences on technology adoption, TAM2 extended the model by incorporating social

influence processes such as subjective norm, voluntariness, and image, as well as cognitive instrumental processes including job relevance and result demonstrability (Venkatesh & Davis, 2000). TAM2 demonstrated that social norms and peer expectations significantly shape individuals' perceptions of a technology's usefulness, particularly in voluntary usage settings (Venkatesh & Davis, 2000). Building further on these developments, the Unified Theory of Acceptance and Use of Technology (UTAUT) was developed by integrating elements from eight competing models of technology acceptance into a single unified framework (Venkatesh et al., 2003). UTAUT identifies four core determinants of behavioral intention and technology use: performance expectancy, effort expectancy, social influence, and facilitating conditions (Venkatesh et al., 2003). UTAUT significantly outperforms the eight individual models it integrates, explaining up to 70 percent of the variance in behavioral intention to use technology (Venkatesh et al., 2003).

Despite the considerable explanatory power of these models, important limitations remain. TAM has been critiqued for its exclusive focus on utilitarian motivations, which may be less applicable to consumer-facing or pleasure-oriented digital services. For hedonic information systems, perceived enjoyment and ease of use are stronger determinants of adoption intention than perceived usefulness, suggesting that TAM's core assumptions do not transfer uniformly across all technology contexts (Van der Heijden, 2004). UTAUT similarly faces criticism for its limited external validity in consumer contexts, as it was originally developed and tested in organizational settings rather than voluntary consumer adoption scenarios. These limitations are particularly relevant for a sports coordination platform, which has both functional and social-hedonic dimensions that go beyond pure utility.

The application of TAM and UTAUT to sports and fitness applications has received growing scholarly attention. A systematic review of studies examining the intention to use fitness and physical activity apps found that TAM is the most widely used theoretical framework in this domain, with perceived usefulness and perceived ease of use consistently emerging as the most influential determinants of adoption intention (Sanz-Blas et al., 2020). These findings are directly relevant to the platform examined in this thesis. Users must perceive that the platform offers genuine value in helping them find and coordinate shared outdoor sports activities, and that the interface is sufficiently intuitive to use without excessive effort. Furthermore, given the social and experience-driven nature of the platform, the social influence construct (Venkatesh et al., 2003) and perceived enjoyment (Van der Heijden, 2004) are likely to be key drivers of adoption, as the decision to engage with a peer-

to-peer sports coordination tool is strongly influenced by the behavior and recommendations of peers within one's social network (Vinnikova et al., 2020).

2.3 Sports Participation & Social Factors

Sports participation is shaped by a complex interplay of individual, social, and environmental factors that go beyond simple motivational considerations. Physical activity behavior is influenced not only by personal motivation but also by broader contextual and social determinants (Bauman et al., 2012). Understanding these determinants is essential for designing digital platforms that aim to facilitate and sustain engagement in shared sports activities.

A comprehensive review of the correlates of physical activity identified individual-level factors such as age, health status, and self-efficacy, as well as social and environmental factors including social support, access to facilities, and neighborhood characteristics (Bauman et al., 2012). These findings highlight that sports participation is not simply a matter of individual choice but is embedded in broader social and environmental conditions that either enable or constrain engagement. A systematic review of the psychological and social benefits of sports participation found strong evidence that participation in sport generates positive outcomes including improved mental health, enhanced social interaction, and a greater sense of community belonging (Eime et al., 2013). Importantly, these benefits are closely tied to the social nature of sports activities, suggesting that the relational dimension of sport is central to its value for participants (Eime et al., 2013).

The role of social support and community belonging in sustaining sports participation has been widely recognized in the literature. Social support from peers, friends, and community members has been identified as one of the most consistent positive predictors of physical activity engagement (Bauman et al., 2012). Club-based and socially embedded forms of sport participation are associated with stronger psychological and social health outcomes compared to individual forms of physical activity, underscoring the importance of social connectedness as a driver of sustained engagement (Eime et al., 2013).

Despite the well-documented benefits of sports participation, research also highlights significant barriers that prevent individuals from engaging in physical activity. A range of psychological, social, and environmental barriers to participation have been identified, including lack of motivation, social anxiety, absence of suitable partners, and limited access to appropriate facilities (Bauman et al., 2012). A systematic review of facilitators and constraints to adult sports participation found that social connection and interpersonal factors were among the most frequently reported influences on participation decisions, with a lack

of social support and difficulty finding suitable partners emerging as important constraints (Crossman et al., 2024). These findings underscore the relevance of a location-based coordination platform that specifically addresses the challenge of connecting individuals for shared sports activities, particularly in urban environments where social networks may be fragmented and finding suitable training partners can be challenging.

2.4 Platform Business Models

The concept of the business model has become a central unit of analysis in management research, providing a framework for understanding how organizations create, deliver, and capture value. A business model is defined as the design or architecture of the value creation, delivery, and capture mechanisms employed by a firm, arguing that a well-designed business model is essential for translating innovation into economic value (Teece, 2010). A business model reflects management's hypothesis about what customers want, how they want it, and how the enterprise can organize to best meet those needs while generating profit (Teece, 2010). This concept places the business model at the intersection of strategy, innovation, and value creation, making it a particularly relevant lens for analyzing digital platform ventures.

A comprehensive review of the business model literature identified four key themes across different theoretical perspectives (Zott et al., 2011). First, the business model is emerging as a new unit of analysis that goes beyond the firm or the industry level. Second, business models emphasize a system-level, holistic approach to explaining how firms do business, rather than focusing on individual components in isolation. Third, firm activities play a central role in the various definitions of business models that have been proposed. Fourth, and most importantly, business models seek to explain how value is created, not just how it is captured (Zott et al., 2011). These themes are particularly relevant for digital platforms, where value creation typically emerges from the interactions facilitated between users rather than from the production of goods or services by the platform itself.

Critically, business models are not static constructs but require continuous adaptation and deliberate innovation over time. Business model innovation can be defined as "designed, novel, and non-trivial changes to the key elements of a firm's business model and/or the architecture linking these elements" (Foss & Saebi, 2017, p. 216) and represents a distinct source of competitive advantage that complements traditional forms of product and process innovation. For digital platform ventures operating in rapidly evolving markets, the capacity to adapt and innovate the business model over time is particularly important. Platform business models are characterized by distinct value creation, delivery, and capture mechanisms that differ fundamentally from those of traditional firms, requiring continuous

experimentation before a sustainable configuration can be identified (Täuscher & Laudien, 2018). Early-stage platforms must therefore experiment with these mechanisms before arriving at a configuration that proves sustainable at scale (Foss & Saebi, 2017).

The sustainability dimension of platform-based business models has received growing attention in recent management research. Digital technologies and sustainability orientations are increasingly converging in how firms design their business models, with digital platforms particularly well positioned to generate sustainable value by enabling more efficient coordination between users, reducing transaction costs, and facilitating new forms of social and environmental value creation alongside economic value (Palmié et al., 2025). This perspective is directly relevant to the platform examined in this thesis, which seeks to create social value by reducing barriers to shared sports participation while simultaneously developing a viable and sustainable platform-based business model. In the context of digital platforms, business model sustainability requires balancing user value creation with appropriate value capture mechanisms that do not undermine the core value proposition for participants (Teece, 2010; Zott et al., 2011).

3. Methodology

This chapter describes the research methodology used in this thesis to answer the two research questions that guide this study. The methodology is divided into four parts. The research design is presented and justified first. Second, the competitor analysis approach is introduced, describing how the present market situation is examined systematically. Thirdly the qualitative study is described including the selection strategy for interviewees, data collection process, design of interview guide, analytical approach and ethical considerations. Fourth, the quantitative study is introduced including the survey design, the structure of variables, and analytical methods. These four parts combine to create a sequential mixed methods approach from secondary market data to exploratory qualitative inquiry to quantitative validation.

3.1 Research Design

In this thesis a sequential mixed methods research design is used, where qualitative and quantitative methods are combined in a structured sequence. This approach is especially appropriate when a combination of qualitative and quantitative methods is necessary to address the research problem fully (Creswell & Plano Clark, 2018). The nature of the research questions requires both an in-depth exploration of user needs and perceived barriers, and a broader quantitative assessment of the identified findings across a larger sample.

The research is developed in three phases following an exploratory sequential logic. First, a competitor analysis based on secondary data gives the market context and the structural gap addressed by the platform concept. Then, semi-structured interviews are conducted to deeply explore user needs, perceived barriers and desired platform features. These qualitative findings are further confirmed by a follow-up quantitative study, based on surveys, which confirms and extends the interview findings to a broader sample. Thus, each phase builds on the insights from the previous one, increasing the overall validity and completeness of the results.

Given the exploratory nature of the study, it addresses a context that has received little empirical attention before, namely location-based peer-to-peer sports coordination platforms. Rather than testing existing hypotheses, the main goal is to gain a rich and grounded understanding of user behavior and platform needs which can be used as a basis for platform design and business model development.

3.2 Competitor Analysis

The competitor analysis is based on secondary data and describes the existing market for sports coordination platforms and the competitive gap that the proposed platform concept

fills. Sources include market research reports from Grand View Research (2025) and Ken Research (2024), platform-specific usage and revenue statistics from Business of Apps (2026), and trend data from Strava's annual Year in Sport report (Strava, 2024). These sources are relevant to the sports and fitness application market and provide recent data, forming the empirical basis for the market-level analysis.

It is structured around two main outputs. The first output is a competitor comparison table that maps existing platforms and substitute solutions against a set of specific features, including: real-time coordination capabilities, location-based matching, social features and business model type. This provides a systematic way to assess how well existing solutions do or do not meet user coordination needs. Second, a perceptual map is constructed with two axes that are especially relevant to the target user: the degree of social interaction that the platform enables and the level of real-time coordination capability that it offers. This map of current competitors provides a visual representation of the untapped market space and the position of the proposed platform concept. These analytical tools together provide the empirical basis for establishing the research gap and the potential market opportunity for the platform, which are presented in Chapter 4.

3.3 Qualitative Study - Semi-Structured Interviews

Semi-structured interviews were the main qualitative data collection method to investigate the user needs, perceived barriers and desired platform features in depth. Semi-structured interviews are well-established in the field of exploratory qualitative research as they combine structure with flexibility. The standardized guide provides consistency across interviews while participants have the opportunity to express their experiences and preferences in their own words (Kallio et al., 2016).

The target group consists of urban sports practitioners between 18 and 35 years old. This age range was chosen deliberately, because empirical data shows that the Gen Z and Millennial demographics are the primary user group of digitally coordinated and socially embedded sports platforms. 47% of participants in major running events are 35 years and younger, and women under 25 years are the fastest growing segment (Strava, 2024; Huyghe et al., 2024). Furthermore, this demographic shows the highest levels of smartphone usage and digital affinity, making it the most relevant group for evaluating a location-based platform concept. The main criteria for selection are frequent participation in outdoor sports activities, specifically running or cycling, living in a city and digital affinity. The participants are selected through purposive sampling to ensure that they have the specific characteristics and experiences that are most relevant to the research questions (Patton, 2002). Participants

are recruited via personal networks, social media communities related to running and cycling and urban sports groups, selected to be representative of a range of genders, fitness levels and previous experience with digital sports applications, minimizing the risk of sampling bias.

Ten interviews were completed and no substantively new themes emerged from subsequent interviews, reaching thematic saturation (Braun & Clarke, 2006). The interviews took place face-to-face or over video call and were recorded with the consent of the participants. An interview guide was followed to ensure a natural flow of conversation. The guide begins with warm-up questions on general sports habits and routines and then moves on to questions on current approaches to finding activity partners, experienced challenges and usage of existing digital tools. The participants are then asked to give their opinion on the platform concept and to specify their preferences for certain features and functionalities. Appendix A contains the full interview guide.

The key propositions that emerged from the literature review and guided the interview process focused on the role of social support in sports participation, perceived barriers to finding activity partners and the potential value of a location-based coordination platform to address these barriers. Instead of fixed hypotheses, these propositions are seen as exploratory starting points from which unexpected insights can emerge from the data.

Qualitative data are analyzed through thematic analysis, a systematic approach to identify, analyze and report patterns within qualitative data (Braun & Clarke, 2006). The method is a mix of deductive and inductive approaches. The deductive codes are based on the theoretical framework developed in the literature review. The framework incorporates constructs from the Technology Acceptance Model including perceived usefulness and perceived ease of use as well as social and environmental barriers to sport participation as identified by Bauman et al. (2012) and Crossman et al. (2024). Inductive codes are derived from the interview data itself. Themes generated by participants may complement and extend the theoretical categories. Manual coding was possible given the scope of study. The codes were categorized and then developed into themes and are presented in Chapter 4 (Saldaña, 2021). The coding tree was modified and checked several times to ensure that the interpretation is consistent and accurate.

3.3.1 Ethical Considerations

All interviews were conducted in accordance with the ethical norms of research and the guidelines of Universidade Católica Portuguesa. Prior to each interview, participants are informed about the purpose of the study, the voluntary nature of their participation,

confidentiality arrangements, and their right to withdraw at any time. Verbal informed consent to audio record and for the interview is obtained prior to each interview. All recordings are kept confidential, transcripts are anonymized and data are used for academic purposes only.

3.4 Quantitative Study - Survey

The quantitative survey is developed based on the themes and insights from the interview phase, with the aim of validating and generalizing the qualitative findings across a broader sample. Wherever possible, items in the survey are adopted from previously tested and validated scales in the technology acceptance literature, for example TAM (Davis, 1989) and UTAUT (Venkatesh et al., 2003), to support the reliability and validity of the measurement instrument.

It is designed for regression analysis in which the survey establishes one dependent variable and a set of independent variables. The dependent variable is the behavioral intention to use the platform, and the independent variables are perceived usefulness, perceived ease of use, social influence, and trust that form the theoretical framework created in the literature review. Responses are measured on five-point Likert scales. To place participant responses in the context of a concrete understanding of the concept of the platform, the survey includes visual materials such as screenshots and a general introduction to the platform prototype. Participants can thus interact with a concrete product representation rather than an abstract one. This is expected to improve the quality and validity of responses and represents an initial evaluation of the prototype itself. Before a survey is fully distributed, a pilot test is completed to identify any issues with question clarity, survey length or technical functionality.

The quantitative data are analyzed in two phases. First, descriptive statistics and frequency distribution are computed to give an overview of the sample characteristics and the distribution of responses across the survey items. Regression analysis is then used to examine the relationship between the independent variables and the dependent variable of intention to use the platform. This enables the comparison of the strongest predictors of the intention to adopt the platform in the target user group. This analysis offers actionable insights for platform design and positioning. Descriptive outputs are done in Excel, while regression analysis is conducted in Python. Appendix D contains the survey questionnaire.

4. Data Analysis

The following chapter presents the empirical findings of this thesis, structured across three analytical phases. While the first sub-research question was addressed through the theoretical framework established in the literature review, this chapter focuses on the second sub-research question, examining how the market for sports coordination platforms can be characterized and which user needs, perceived barriers, and desired platform features must be considered to develop and evaluate the platform concept. The analysis begins with a market research and competitor overview, which draws on secondary data to characterize the existing landscape of sports coordination platforms, identify key substitutes, and establish the structural market gap that the proposed platform concept addresses. Building on this foundation, the qualitative findings derived from semi-structured interviews with target users are presented, exploring user needs, perceived barriers, and desired platform features in depth. Finally, the quantitative findings from the survey are discussed, validating and extending the qualitative insights across a broader sample and examining the key drivers of platform adoption intention among the target user group. Together, these three analytical components provide the empirical basis for addressing the second sub-research question of this thesis.

4.1 Market Research & Competitor Overview

The market for sports and fitness applications has experienced substantial growth in recent years, driven by increasing consumer interest in health and wellness, the widespread adoption of smartphones, and the progressive integration of wearable technologies into everyday life. According to Grand View Research (2025), the global fitness app market was valued at approximately USD 12.12 billion in 2025 and is projected to expand at a compound annual growth rate of 13.40% through 2033. Within this broader market, fitness tracking applications represent the dominant segment, accounting for approximately 35% of total market share in 2023 (Ken Research, 2024). By 2026, the market is expected to reach USD 13.92 billion, reflecting the accelerating pace of growth and the highly competitive nature of the market (Grand View Research, 2025).

Demographic trends further reinforce the market opportunity for a socially oriented sports coordination platform. Research on urban sports participants confirms that users of digitally coordinated outdoor sports activities tend to be younger, with men currently more prevalent though participation among women is growing rapidly (Huyghe et al., 2024). Strava's 2024 Year in Sport report identified women under 25 as the fastest-growing user segment, while 47% of participants in major running events were aged 35 and under,

indicating that Gen Z and Millennials are the dominant demographic driving demand for socially embedded sports experiences (Strava, 2024). The growing desire for social connection through sport is further reflected in the 59% global increase in running club participation recorded in 2024, with 72% of Gen Z respondents joining run clubs specifically to meet new people (Strava, 2024). These trends collectively indicate a substantial and growing addressable market for a platform that reduces barriers to social sports participation in urban environments.

To characterize the competitive landscape and identify the structural gap that the proposed platform concept addresses, a systematic competitor analysis was conducted based on the secondary data sources described in Chapter 3. The analysis maps the most prominent existing platforms and substitute solutions against six features of central relevance to the platform concept examined in this thesis: real-time coordination capability, location-based matching, social features, independence from existing social networks, sports specificity, and business model type. As illustrated in Figure 1, none of the existing solutions simultaneously fulfills all six criteria.

Platform	Type	Real-Time Coordination	Location-Based Matching	Social Features	No Existing Network Needed	Sports-Specific	Business Model
Strava	Digital platform	No	No	Limited	Yes	Yes	Freemium
Meetup	Digital platform	Limited	No	Yes	Yes	No	Freemium
Nike Run Club	Digital platform	No	No	Limited	Yes	Yes	Free
WhatsApp Groups	Communication Tool	No	No	Yes	No	No	Free
Facebook Events	Event organization	No	No	Yes	No	No	Free
Sports Clubs	Traditional substitute	No	No	Yes	Yes	Yes	Membership
ROAM	P2P coordination	Yes	Yes	Yes	Yes	Yes	Freemium

Figure 1: Competitor Feature Comparison, Source: Own illustration based on *Business of Apps* (2026), *Grand View Research* (2025), and own market analysis.

The most prominent platform in the sports activity space is Strava, which reported 180 million registered users across more than 190 countries as of 2025 and generated USD 415

million in annual revenue in the same year (Business of Apps, 2026). Despite its scale, Strava's core value proposition remains centered on individual performance tracking and post-activity sharing rather than real-time coordination of shared activities. While the platform incorporates social features such as clubs, challenges, and segment competitions, these elements function primarily as engagement mechanisms rather than as tools for spontaneous peer-to-peer activity coordination. Meetup facilitates group activity organization across a range of interests including sports yet lacks sports specificity and real-time location-based matching capabilities. Nike Run Club offers guided running experiences with limited social elements but provides no mechanism for connecting users with nearby activity partners in real time. Informal substitutes such as WhatsApp groups and Facebook Events are widely used to organize group workouts at the grassroots level yet require pre-existing social networks and offer no dynamic matching or location-based discovery functionality. Traditional sports clubs represent another important substitute, providing structured environments for social sports participation but lacking digital real-time coordination capabilities and the flexibility demanded by urban, time-constrained users.

To further contextualize the competitive positioning of the proposed platform, a perceptual map was constructed using two axes of particular relevance to the target user: the degree of social interaction facilitated by the platform and the level of real-time coordination capability offered. As shown in Figure 2, all existing platforms and substitutes cluster in the lower half of the map, reflecting their uniformly limited real-time coordination capabilities, while varying considerably in the degree of social interaction they facilitate along the horizontal axis. Platforms such as WhatsApp Group, Sports Clubs, Facebook Events, and Meetup score higher on social interaction but remain confined to coordination mechanisms that depend on pre-existing networks or scheduled group formats rather than spontaneous peer-to-peer matching. Nike Run Club and Strava, by contrast, sit further left, reflecting their primary focus on individual performance tracking with limited social functionality.

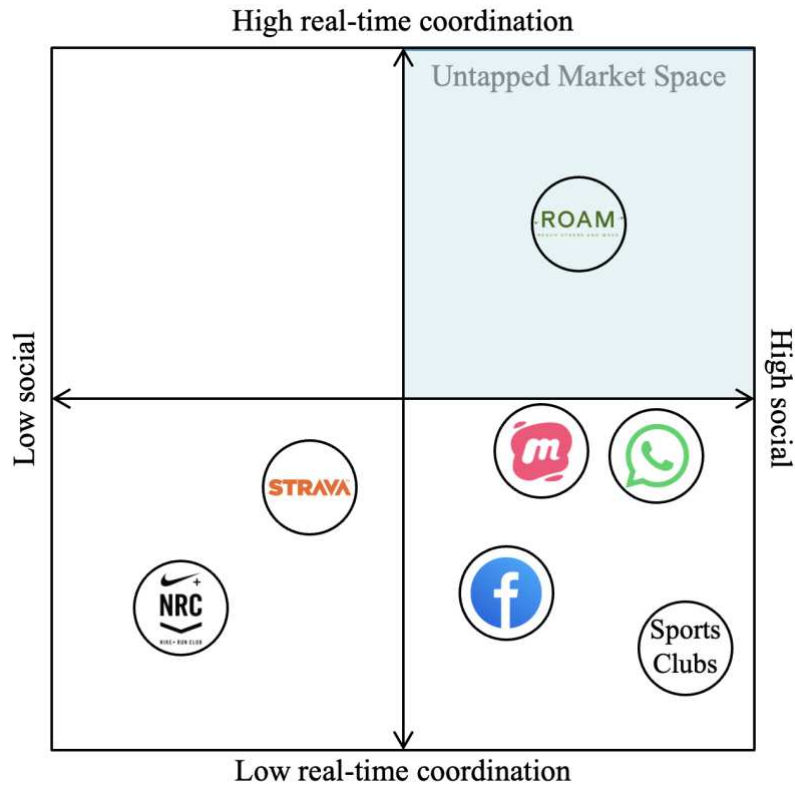


Figure 2: Perceptual Map, Source: Own illustration based on competitor feature assessment in Figure 1.

The upper-right quadrant of the map, characterized by high social interaction combined with high real-time coordination capability, remains entirely unoccupied by any existing solution. This structural gap represents the core market opportunity addressed by the platform concept examined in this thesis. By enabling users to discover, create, and join shared outdoor sports activities in real time based on their current location, ROAM positions itself as the only solution that simultaneously addresses the social and coordinative dimensions of sports participation identified in the literature review.

4.2 Qualitative Findings - Semi-Structured Interviews

The following section presents the qualitative findings derived from ten semi-structured interviews conducted with urban sports practitioners between April 13 and May 4, 2026. The analysis is structured across six sub-chapters. Following a detailed description of the interview sample, four overarching themes are introduced and subsequently examined in depth, covering pain points and barriers, user needs and values, desired platform features, and conditions for platform adoption and trust. All interviewees were assigned anonymized labels (I1-I10) to ensure confidentiality. Transcripts were reviewed and selectively polished for clarity while preserving the meaning and authenticity of the original responses. Qualitative data were analyzed using thematic analysis as described in Chapter 3, combining

deductive codes derived from the theoretical framework with inductive codes emerging directly from the interview data.

4.2.1 Interview Sample Description

The sample consists of ten participants recruited primarily through personal networks, social media communities focused on running and cycling, and direct outreach at urban sports events and social runs. Interviews were conducted between April 13 and May 4, 2026, with a duration of approximately 45 to 60 minutes each. All interviews were conducted in English and recorded with the prior consent of all participants.

The sample spans an age range of 17 to 54, with the majority of participants falling within the primary target demographic of 18 to 35 years. Two participants, I6 (aged 54) and I9 (aged 51), fall outside this range and were included to capture a broader range of perspectives on sports coordination challenges and platform adoption attitudes among older urban sports practitioners. One participant, I8 (aged 17), is below the lower age boundary and was included to represent the perspective of younger users navigating sports participation in an unfamiliar social environment. Their inclusion enriches the thematic analysis by surfacing safety concerns and age-specific barriers that proved highly relevant to the platform concept.

Participants are distributed across Munich, Berlin, and Frankfurt, representing the urban environments central to the platform concept. Professional backgrounds include consulting, software engineering, student life, retail, and self-employment, reflecting a diverse range of schedules, motivations, and digital habits. All participants engage in outdoor sports activities on a regular basis, with running being the most common activity across the sample, followed by cycling, swimming, and padel. A summary overview of the interview sample is provided in Appendix C.

Across the sample, several common patterns emerged. All participants reported relying primarily on WhatsApp for coordinating shared sports activities, supplemented in some cases by Strava, Instagram, or direct in-person coordination. Friction in the coordination process was a shared experience, and all participants expressed a desire for a more efficient and socially embedded way to find suitable training partners. While motivations and attitudes toward the platform concept varied, the core pain points of coordination overhead, social barriers, and pace matching were consistent across interviews, suggesting thematic saturation was reached within the sample.

4.2.2 Overview of Emergent Themes

The thematic analysis of the ten interviews resulted in four overarching themes that structure the qualitative findings. These themes reflect participants lived experiences of coordinating shared sports activities, their reactions to the ROAM platform concept, and their conditions for adoption. Each theme covers a set of sub-themes derived through a combination of deductive coding, informed by the theoretical framework established in the literature review, and inductive coding emerging directly from the interview data. The coding tree is provided in Appendix B.

The first theme, Sports Coordination Behavior and Social Motivations, captures how participants currently organize shared outdoor sports activities and what drives their desire for social participation in sport. It reveals that while participants express a clear preference for training with others, current coordination practices are fragmented, effort-intensive, and largely dependent on pre-existing social networks. The sub-themes of social motivation, coordination effort, and tool fragmentation highlight that the gap between the desire for shared sport and its practical realization is structural rather than motivational.

Building on this, the second theme, Pain Points and Barriers to Shared Sports Participation, aggregates the frustrations and obstacles that prevent participants from engaging in shared sports activities as frequently as they would like. Sub-themes of coordination overhead, pace and schedule mismatch, social anxiety around strangers, and safety concerns, particularly among female and younger participants, reveal that barriers to shared sports participation are simultaneously logistical, social, and psychological.

The third theme, Platform Concept Reaction and Desired Features, captures the responses of participants to the ROAM concept and their vision for an ideal sports coordination platform. Sub-themes of live map appeal, swipe feature reception, rating system as trust enabler, open and closed activity control, and communication before commitment reflect a user expectation of a platform that simultaneously reduces coordination friction, enables new social connections, and maintains personal safety and control.

Finally, the fourth theme, Platform Adoption Intent and Trust Conditions, explores the conditions under which participants would adopt and sustain use of the platform. Sub-themes of critical mass as a condition for adoption, trust through verified credibility, age and safety-specific adoption barriers, and willingness to pay reveal that adoption intent is high but conditional, dependent on sufficient user density, transparent safety mechanisms, and evidence of reliable matching outcomes. Together these four themes provide a

comprehensive empirical foundation for addressing the second sub-research question and informing the platform design and business model implications discussed in Chapter 5.

4.2.3 Pain Points & Barriers to Shared Sports Participation

Despite a clear desire to engage in shared outdoor sports activities, participants identified a range of barriers that prevent them from doing so as frequently as they would like. These barriers extend beyond logistical friction into social and psychological dimensions.

Coordination overhead emerged as the most universally shared pain point. All ten participants relied on WhatsApp as their primary coordination tool yet consistently described it as poorly suited to the task. As I4 noted:

"There were about fifteen messages just agreeing on a time. It's kind of ridiculous when you think about it, fifteen messages to confirm a Sunday morning run." (I4, personal communication, April 14, 2026)

I3 described a comparable experience, noting that a single run took four days of back and forth to organize before she nearly abandoned the effort altogether. I5 captured the overall frustration, stating that "by the time you've sorted all of that, part of you is already tired" (I5, personal communication, April 15, 2026).

Closely linked to coordination effort is the challenge of finding a partner who matches on both availability and fitness level simultaneously. Most participants described this combination as difficult to find within their existing networks. I3 noted that her closest running contact runs at a significantly slower pace, making joint sessions frustrating for both parties. I6 hesitated to seek out new partners, worrying that faster runners would "probably get bored" running at her pace, a concern that suppressed her willingness to reach out entirely (I6, personal communication, April 15, 2026).

Social barriers represented a third obstacle. Even participants who expressed openness to training with new people described the act of initiating contact with a stranger as uncomfortable. I2 identified the absence of a structured entry point as the core problem:

"There are only two options: either I have a friend I can directly reach out to, or there happens to be an event on that exact day. Outside of those two, I don't really see a way to meet someone new who I'd feel comfortable asking to run with." (I2, personal communication, April 13, 2026)

I7, recently relocated to Munich, described a running club visit that left both him and his partner within their own social bubble, noting that after an hour of running everyone went home and nothing had really happened (I7, personal communication, April 16, 2026).

Safety concerns constituted a particularly consequential barrier among female and younger participants. I3 described safety as the first and most immediate concern when

considering running with a stranger, linking this directly to her experience as a woman. I8 expressed a similar hesitation, suggesting that a minimum group size and a women-only filter would significantly reduce her anxiety. I9, reflecting from a parental perspective, stated that ratings alone would not be sufficient and that "some kind of identity check" would be needed before he would feel reassured (I9, personal communication, April 17, 2026).

Finally, failed coordination attempts were shown to have a direct negative effect on participation. I4 noted that on rainy days, going alone felt miserable but finding someone at short notice was "basically impossible," resulting in runs that simply never happened (I4, personal communication, April 14, 2026). I2 illustrated the inverse, describing how a spontaneous invitation from his roommate led to a run he had not planned simply because the friction of coordination had been removed. This suggests that reducing coordination effort may be a more impactful driver of shared sports participation than motivation alone.

4.2.4 User Needs & Values

Beyond the barriers described above, the interviews revealed a set of underlying needs and values that motivate participants to seek out shared sports experiences despite the coordination challenges involved.

The most consistently expressed need was the desire for social connection through sport. Participants described shared training as a fundamentally relational experience rather than a purely performance-driven activity. This was particularly evident among participants who had recently relocated. I7 captured the challenge:

"We are both actively looking for people here in Munich to train with. It's not easy when you're new to a city and haven't built up a network yet." (I7, personal communication, April 16, 2026)

Accountability and motivational support through companionship emerged as a closely related need. Multiple participants described solo training as less motivating and more likely to be abandoned, while training with others provided a structural commitment that made follow-through more likely. I2 described how a fixed run club appointment gets him out the door on days when he would otherwise not have gone, while I4 acknowledged that going alone makes him more likely to cut a session short or skip it entirely.

Reliability emerged as a core value across the sample. Participants wanted assurance that a partner would show up, perform at the level they claimed, and communicate if plans changed. I4 was explicit, describing waiting for someone who does not arrive as something that "would put me off completely" (I4, personal communication, April 14, 2026). I10

reinforced this, noting that punctuality and follow-through are the qualities he values most in any training partner regardless of sport (I10, personal communication, May 4, 2026).

A strong need for personal control was equally evident. Participants consistently described wanting to retain agency over who they train with and when they share their location. I5 articulated this clearly:

"The closed route option is really important to me, I don't want a stranger knowing exactly where I run before I've decided I'm comfortable with them." (I5, personal communication, April 15, 2026)

I3 similarly described a preference for graduated trust, expressing comfort with the Live Map for known contacts while remaining more cautious about the Swipe feature. Finally, participants expressed a consistent need for simplicity. I4 warned that if the app takes more than two minutes to set up and find a run most users will lose interest, while I5 noted that a clean and professional appearance would signal trustworthiness regardless of the features on offer (I5, personal communication, April 15, 2026).

4.2.5 Desired Platform Features

Participants' reflections on their frustrations and needs translated into a coherent set of expectations for an ideal sports coordination platform.

The Live Map feature generated immediate recognition across the sample. Participants did not need the concept explained at length and most identified situations from their own experience where such a feature would have been directly useful. I1 reflected that knowing a friend was already out running and being able to join spontaneously was exactly the kind of solution he had been missing. For participants with unpredictable schedules, most notably I9, the Live Map represented the only feature they could realistically see themselves using, precisely because it requires no advance planning.

The Swipe feature attracted strong interest among younger and more digitally active participants. I2 described it as giving users "the chance to post an activity and actively choose who to go out with," directly addressing the confidence gap that prevents spontaneous coordination with unfamiliar people (I2, personal communication, April 13, 2026). I7 and I10, both navigating new social environments in Munich, described the Swipe as the mechanism that would allow them to build the local training network they currently lacked. Older participants were more cautious, with I6 and I9 expressing a clear preference for the Live Map.

The rating system was identified across virtually all interviews as a critical enabler of trust. I1 drew an explicit parallel to Airbnb and Vinted, noting that reputation mechanisms

are precisely what make interactions between strangers feel acceptable. I4 described the effect of a strong rating profile:

"Five or six runs with solid ratings and I'd feel confident meeting them. It's like buying something on eBay from a seller with a hundred good reviews, you trust it in a way you wouldn't with someone brand new." (I4, personal communication, April 14, 2026)

Punctuality and pace accuracy were most frequently cited as the key rating criteria, with several participants also mentioning communication behavior as an important dimension.

The Open and Closed activity setting was particularly valued by female participants for whom route privacy represented a meaningful safety consideration. I3 and I5 both identified the closed setting as a condition for their willingness to engage with the Swipe feature. Beyond the core features, participants identified a lightweight pre-match communication function as a meaningful addition, allowing brief exchanges to confirm pace and fit before committing to a meeting. Additional suggestions included calendar integration, demographic filters, and an emergency SOS button described by I8 as "just reassuring to know exists, even if you never use it" (I8, personal communication, April 16, 2026).

4.2.6 Platform Adoption Intent & Trust Conditions

Across the sample, adoption intent for ROAM was broadly positive. No participant dismissed the concept outright and the majority expressed a genuine willingness to try the platform once available. However, this willingness was consistently conditional.

The most frequently cited condition was the presence of a sufficient user base in the participant's immediate area. I2 noted that without enough nearby users the Swipe feature would simply not deliver on its promise, while I6 concluded that without friends on the platform the Live Map would offer her no value. This chicken-and-egg dynamic, recognized by participants themselves, underscores the importance of achieving local user density before scaling broadly.

Trust emerged as the second major condition. The rating system was consistently identified as the primary mechanism for establishing trust with unknown training partners, but several participants also emphasized the need for identity verification. I8 emphasized the importance of knowing that users are who they claim to be, while I9 distinguished between ratings and identity verification, describing the latter as the measure that would give him genuine confidence in the platform's safety. I7 raised a related concern about unintended platform dynamics:

"I'm worried that people will start matching not because the pace or the goals line up, but because they find the other person attractive. It would be a shame if the app ends

up becoming a kind of sports Tinder where looks matter more than whether someone actually runs at the right level." (I7, personal communication, April 16, 2026)

Demographic differences also shaped adoption attitudes. Older participants expressed lower willingness to engage with interactive features, while younger users showed stronger overall interest. I9 stated plainly that if the app feels built only for twenty-year-olds he would not engage with it.

On willingness to pay, participants broadly preferred a freemium model with a functional free tier and optional premium features. I3 described a flat monthly fee of around five euros as feeling fair, while I10 suggested a one-time fee or weekly connection cap as psychologically acceptable alternatives (I10, personal communication, May 4, 2026). I8 emphasized the importance of a genuinely free tier for younger users.

Finally, social proof emerged as a meaningful accelerator of adoption. Participants described scenarios in which seeing a friend successfully using the platform would trigger their own adoption. I2 highlighted the potential of local brand collaborations such as post-run coffee partnerships, while I1 raised the possibility of a future Strava integration as a way to leverage existing habits while introducing a new coordination layer (I1, personal communication, April 13, 2026).

4.3 Quantitative Findings - Survey Results

The quantitative phase of the study involved a survey distributed among urban sports practitioners, building on the themes and insights identified in the qualitative interview phase. A total of 265 responses were collected, of which 255 passed the attention check and formed the basis for all subsequent analyses. The survey was structured to examine the relationship between four independent variables namely Perceived Usefulness, Perceived Ease of Use, Social Influence, and Trust, and the dependent variable of Behavioral Intention to use ROAM.

4.3.1 Descriptive Statistics

Most of the 255 respondents reside in urban areas, with 68% living in a major city. The age distribution reflects the target demographic, with the largest share falling in the 25 to 29 age group (39%), followed by 18 to 24 (22%) and 30 to 35 (15%). The sample is broadly balanced in terms of gender, with 54% male and 46% female respondents. Running is the most common outdoor sport among respondents (78%), followed by cycling (50%) and padel (34%), confirming alignment with the target user group.

Regarding current sports coordination behavior, Q1 revealed that participants engage in outdoor sports together with others only occasionally, with a mean score of 2.64 on a five-

point scale ($SD=1.10$), where 1 indicates never and 5 indicates always. This confirms the pattern identified in the qualitative findings: while participants value shared sports activities, their actual frequency of engaging in them with others remains limited. Q2 further reinforces this picture, with a mean difficulty score of 4.02 ($SD=0.98$) for spontaneously finding a suitable sports partner at short notice, indicating that the majority of respondents find this genuinely difficult. Together, these two items establish the relevance of the coordination problem that ROAM aims to address.

All construct items were measured on a five-point Likert scale, where 1 indicates strong disagreement and 5 indicates strong agreement. Turning to the construct-level descriptives, Perceived Usefulness received the highest mean score among the four independent variables ($M=4.05$, $SD=0.81$). At the item level, PU1, measuring whether ROAM would make it easier to find suitable sports partners, received the strongest endorsement ($M=4.11$, $SD=0.88$), while PU2 and PU3 followed closely ($M=4.02$ each). These scores indicate that participants broadly perceive ROAM as a useful tool for addressing the coordination barriers they experience, a finding consistent with the qualitative interviews in which ease of finding partners and time savings emerged as primary motivators.

Social Influence received the second highest construct mean ($M=3.91$, $SD=0.66$), though with notable variation across items. SI3, reflecting motivation to use ROAM if others in one's sports community were already using it, received the highest item score ($M=4.25$, $SD=0.83$), while SI1, measuring whether people important to the respondent would approve of using ROAM, was considerably lower ($M=3.37$, $SD=1.06$). This gap suggests that peer adoption within the sports community is a stronger driver than general social approval, reinforcing the network effects logic established in the literature review and the critical mass concerns raised by participants in the interviews.

Perceived Ease of Use received a construct mean of 3.78 ($SD=0.73$). PEOU1, measuring ease of learning to use the app, received the highest item score within this construct ($M=3.92$, $SD=0.98$), while PEOU2, measuring the effort required to find and join a nearby activity, was somewhat lower ($M=3.56$, $SD=0.95$). These scores suggest that while participants are broadly confident in their ability to learn the platform, some uncertainty remains around the practical ease of the core matching functionality.

Trust received the lowest construct mean among the four independent variables ($M=3.43$, $SD=0.78$), consistent with the safety concerns and identity verification needs that emerged prominently in the qualitative phase. At the item level, T1, measuring perceived safety when meeting a person connected through ROAM, received the lowest score

($M=3.14$, $SD=0.98$), reflecting the hesitation around meeting strangers for shared outdoor activities that was identified across multiple interviews. T2, measuring confidence in ROAM's responsible handling of personal data and location information, was more favorable ($M=3.64$, $SD=0.95$).

Behavioral Intention to use ROAM received the highest mean score across all measured constructs ($M=4.13$, $SD=0.81$). BI3, measuring willingness to recommend ROAM to others in one's running or cycling community, received the strongest endorsement ($M=4.29$, $SD=0.84$), followed by BI1 measuring intent to use the platform once available ($M=4.09$, $SD=0.90$) and BI2 measuring the ability to imagine regular use ($M=4.01$, $SD=0.93$). These scores indicate a strong and consistent adoption intent among the surveyed population, despite the lower trust scores, suggesting that perceived usefulness is a sufficiently strong motivator to drive intention even in the presence of unresolved trust concerns.

Regarding feature preferences, participants were asked to select up to three features. The Live Map and Swipe feature were selected as the most important features by 70% and 68% of respondents respectively, confirming that the two core features of the platform concept resonate strongly with the target user group. Verified user profiles for safety was the third most frequently selected feature (56%), reinforcing the trust dimension identified in both the qualitative and quantitative phases. On safety mechanisms specifically, 90% of respondents selected verified user profiles as the feature that would make them feel most comfortable using the platform, followed by user ratings and reviews (73%).

On willingness to pay, 50% of respondents preferred a completely free model with basic features, while 28% indicated preference for a freemium model with optional paid premium features. Only 7% favored a monthly subscription. Taken together, these results suggest a strong preference for a freemium approach in which core functionality is freely accessible, consistent with the pricing preferences expressed by interview participants.

4.3.2 Regression Analysis & Key Drivers of Adoption

To examine which factors most strongly predict behavioral intention to use ROAM, a multiple linear regression analysis was conducted with Behavioral Intention as the dependent variable and Perceived Usefulness, Perceived Ease of Use, Social Influence, and Trust as independent variables. The analysis was based on 254 complete cases after listwise deletion of missing values.

The overall model was statistically significant and explained a substantial proportion of the variance in behavioral intention ($R^2=0.481$, Adjusted $R^2=0.472$), indicating that the four independent variables together account for approximately 48% of the variance in adoption

intent among the surveyed population. The full regression output is provided in Appendix E.

Perceived Usefulness emerged as the dominant and only highly significant predictor of behavioral intention ($\beta=0.637$, $p<0.001$). This finding is consistent with the TAM framework established in the literature review, which identifies perceived usefulness as the primary determinant of behavioral intention in technology adoption contexts (Davis, 1989). The strong beta coefficient indicates that participants' belief in ROAM's ability to solve their coordination challenges is the single most powerful driver of their willingness to adopt the platform. This result directly validates the platform's core value proposition: if users perceive ROAM as genuinely useful in addressing the coordination barriers they experience, adoption intent follows strongly. In practical terms, ROAM's core communication should focus on demonstrating how the platform solves a real and frequently experienced problem, making the value proposition immediately tangible for new users.

Trust reached statistical significance at the conventional threshold ($\beta=0.116$, $p=0.030$), confirming that perceived safety and data responsibility are meaningful predictors of adoption intent, though considerably weaker than perceived usefulness. This finding aligns with the qualitative phase, in which trust emerged as a conditional rather than a primary driver. Participants were willing to engage with the platform if perceived usefulness was high, but trust barriers represented a meaningful obstacle that required targeted design responses such as the rating system and identity verification features. For platform design, this underscores the importance of making trust mechanisms such as the rating system and verified profiles visible and central from the first user interaction.

Perceived Ease of Use did not reach statistical significance ($\beta=0.028$, $p=0.649$), suggesting that once participants understand the platform's value, the effort required to use it does not strongly influence their adoption intent. This finding is consistent with the hedonic and social nature of the platform, where Van der Heijden (2004) noted that ease of use is a less critical determinant for hedonic systems compared to utilitarian ones. Interview participants similarly indicated that simplicity matters primarily as a threshold condition rather than a primary motivator. This suggests that design resources are better invested in delivering clear platform value than in further simplifying the interface.

Social Influence also did not reach statistical significance in the regression ($\beta=0.042$, $p=0.535$), despite receiving a relatively high construct mean. This apparent contradiction is explained by the strong overlap between Social Influence and Perceived Usefulness. Participants who perceive the platform as useful also tend to believe their peers would

endorse it. While Social Influence does not independently predict adoption intent when controlling for other variables, its role as a network effects enabler remains strategically important for platform growth, as reflected in the critical mass concerns raised consistently across interviews. This suggests that growth will be most effective when the platform is introduced within existing sports communities, where users can observe and be influenced by peers who are already using it.

Taken together, the regression findings confirm that Perceived Usefulness is the primary lever for driving platform adoption among the target user group, while Trust represents a meaningful secondary condition that the platform must address through design to unlock the full adoption potential suggested by the descriptive statistics.

5. Discussion

The following chapter discusses the empirical findings of this thesis in relation to the theoretical framework established in the literature review. Qualitative and quantitative findings are interpreted through the lens of digital platform theory, technology acceptance research, and sports participation literature, before implications for platform design and business model development are derived. The chapter concludes with a reflection on the limitations of the study.

5.1 Qualitative Findings in Relation to the Theoretical Framework

Rich empirical support for several of the theoretical propositions established in the literature review emerged from the qualitative findings, while also surfacing insights that extend beyond the existing theoretical framework.

Across all ten interviews, participants relied exclusively on informal tools such as WhatsApp for organizing shared sports activities yet consistently described these tools as poorly suited for the task. This fragmentation reflects the coordination cost logic central to platform theory, which suggests that platforms create value precisely by reducing the transaction costs associated with matching and coordination between users (Rochet & Tirole, 2003). The structural gap identified in the perceptual map, an unoccupied market space combining high social interaction with high real-time coordination capability, is thus not only a competitive observation but an empirically validated user experience.

Regarding social motivations, participants described shared training as a fundamentally relational experience driven by desires for social connection, accountability, and community belonging, consistent with the evidence that socially embedded forms of sport generate stronger psychological and social health outcomes than individual training (Eime et al., 2013). Several participants had recently relocated and were using sport as a main way to build new social networks, reinforcing the argument made by Bauman et al. (2012) that social support is one of the most consistent positive predictors of physical activity engagement.

One of the most significant inductive insights of the qualitative phase concerns safety, particularly among female and younger participants. While TAM and UTAUT identify perceived risk as a relevant adoption barrier, the specific safety dynamics surfaced in the interviews go beyond what these frameworks typically capture. Safety is experienced not merely as a perceived risk construct but as a relational and gendered concern, with participants expressing strong demand for verified profiles, rating systems, and route privacy as conditions for engagement rather than optional additions.

Consistently across interviews, participants recognized that the platform's core features depend on local user density for their value, and several drew explicit comparisons to dating apps to illustrate the chicken-and-egg problem typical of platform launch. This reflects the network effects logic described by Katz & Shapiro (1985) and Rysman (2009), confirming that local user density is a critical condition for the platform's value proposition to materialize.

5.2 Quantitative Findings in Relation to the Theoretical Framework

While largely confirming the theoretical framework, the quantitative findings offer particularly clear implications for the relative importance of the four adoption constructs examined.

With a beta coefficient of 0.637 and p less than 0.001, Perceived Usefulness emerged as the dominant predictor of behavioral intention, strongly confirming the TAM framework's central proposition that perceived usefulness is the most important determinant of technology adoption (Davis, 1989). A high construct mean of 4.05 alongside this strong regression coefficient suggests that participants not only perceive ROAM as useful in the abstract but that this perception translates directly and powerfully into adoption intent. Particularly meaningful is that participants were responding to a platform concept rather than a functioning product, suggesting that the value proposition of ROAM is sufficiently clear and compelling to drive strong adoption intent even without direct product experience.

At a construct mean of 3.43, Trust received the lowest score among the four independent variables, yet reached statistical significance as a secondary predictor of behavioral intention ($\beta=0.116$, $p=0.030$). This reveals an important tension in the adoption landscape: trust is strong enough to meaningfully influence adoption intent but currently insufficient as a foundation for unconditional engagement. Consistent with Van der Heijden's (2004) observation that hedonic and socially oriented systems require trust mechanisms that go beyond perceived ease of use, this finding confirms that safety and data responsibility are not secondary concerns but meaningful determinants of whether users will ultimately commit to the platform.

Non-significance of Perceived Ease of Use ($\beta=0.028$, $p=0.649$) is consistent with the hedonic and social character of the platform. For hedonic information systems, ease of use is a weaker driver of adoption than for utilitarian systems, as users are motivated primarily by the experience and value the platform delivers rather than the effort it requires (Van der Heijden, 2004). While statistical non-significance suggests that interface simplification is not a primary adoption driver once usefulness is established, it remains strategically relevant

as a threshold condition for early platform growth. A frictionless onboarding experience may be essential for retaining first-time users who have not yet formed strong usefulness perceptions.

Despite receiving a relatively high construct mean of 3.91, Social Influence did not reach statistical significance in the regression ($\beta=0.042$, $p=0.535$). This result can be explained theoretically: users who believe ROAM is useful are also likely to believe their peers would endorse it, creating a strong overlap between the two constructs. While Social Influence does not independently predict adoption intent in a statistical sense, its strategic importance for early platform growth should not be underestimated. In platform markets characterized by network effects, peer adoption and social proof are critical mechanisms for achieving the local user density that makes the platform's core features viable (Katz & Shapiro, 1985).

5.3 Implications for Platform Design

Taken together, the empirical findings point to three prioritized design recommendations for ROAM.

The first and most critical priority is establishing a minimum viable trust infrastructure. A score of 3.14 for T1, measuring perceived safety when meeting a person connected through ROAM, represents the platform's most significant adoption barrier. With 90% of respondents selecting verified user profiles and 73% selecting user ratings and reviews as the features that would make them most comfortable, a multi-layered trust system combining identity verification, behavioral ratings, and route privacy through the Open and Closed activity setting must be in place before launch. Without this foundation, the platform's social coordination functionality cannot operate effectively regardless of its technical quality.

The second priority concerns launch density and feature sequencing. Given the network effects logic established in the literature review, the platform must achieve sufficient local user density before its core features deliver meaningful value. A phased feature introduction is therefore recommended: beginning with the Live Map for existing contacts, which requires no matching and carries lower trust risk, before progressively enabling the Swipe feature for new partner discovery as the user base grows and trust mechanisms mature. This phased approach also aligns with the demographic variation observed in the data, allowing the platform to build an initial user base through the lower-risk Live Map before scaling the Swipe feature as network density grows.

The third priority is reducing coordination friction at every interaction point. Both the Live Map and Swipe feature must deliver on their promise with minimal effort: the Live Map must provide genuinely real-time visibility of active contacts, and the Swipe

mechanism must surface relevant matches quickly and with sufficient information to support an informed decision. A lightweight pre-match communication function, allowing users to confirm pace, route, and general fit before committing to a meeting, would further reduce the uncertainty that currently suppresses willingness to engage with unknown training partners.

5.4 Implications for Business Model Development

A clear empirical foundation for the platform's business model design is provided by the findings, validating several theoretical propositions from the literature review while pointing to specific strategic priorities.

Willingness to pay findings confirm that a freemium model represents the most viable monetization approach at this stage. With 50% of respondents preferring a completely free model and 28% indicating openness to a freemium structure, a free core tier is essential for achieving the user density required for the platform's network effects to function. As Täuscher and Laudien (2018) observed, platform business models require continuous experimentation before a sustainable configuration can be identified, and monetization should therefore be approached step by step, starting with a free core offering to build a critical user base before introducing premium features for heavy users.

A focused city-by-city launch strategy that prioritizes depth over breadth is empirically indicated by the critical mass concern identified consistently across both qualitative and quantitative phases. Network effects platforms that attempt to scale broadly before achieving local density typically fail to deliver sufficient value to sustain user engagement (Katz & Shapiro, 1985). Munich, where the majority of interview participants were located and where running club participation is high, represents a logical primary market for an initial launch.

Community-oriented growth mechanisms may be more effective than traditional advertising for driving platform adoption, given the social proof dynamics identified in the qualitative phase. Participants consistently described scenarios in which seeing a friend successfully using the platform would trigger their own adoption. Partnerships with local running clubs, social run communities, and urban sports events represent low-cost, high-credibility channels for introducing the platform within communities where word of mouth can spread naturally. A future integration with Strava, raised by several interview participants, represents a longer-term growth pathway that could leverage an existing user base of 180 million active sports practitioners (Business of Apps, 2026).

Finally, by enabling more efficient coordination of shared sports activities, ROAM reduces barriers to social sports participation that research consistently identifies as a public

health concern (Bauman et al., 2012; Crossman et al., 2024). A future sustainability layer, supported by the carbon footprint tracker feature suggested by survey respondents, could enhance the platform's social value proposition while opening additional monetization and partnership opportunities, consistent with the digital-sustainable business model framework described by Palmié et al. (2025).

5.5 Limitations

Several limitations of the present study should be acknowledged when interpreting the findings.

Although deliberately included to enrich the thematic analysis by surfacing age-specific perspectives, three interview participants fall outside the defined target age range of 18 to 35. This introduces a degree of sample heterogeneity that limits the extent to which the qualitative findings can be attributed exclusively to the Gen Z and Millennial target demographic.

Distributed primarily through personal networks and social media communities, the survey sample may have introduced self-selection bias, as participants with an existing interest in outdoor sports and digital coordination tools were more likely to respond. Findings should therefore be interpreted as indicative rather than fully generalizable to the broader population of urban sports practitioners.

All survey measures are based on self-reported responses to a platform concept rather than observed behavior with a functioning product. High behavioral intention scores may therefore reflect enthusiasm for the concept rather than a reliable predictor of actual adoption, consistent with the intention-behavior gap documented in technology adoption research.

While explaining approximately 48% of the variance in behavioral intention, the regression analysis does not account for all potential determinants of adoption. Variables such as prior experience with similar platforms, individual privacy attitudes, and situational factors were not captured in the survey instrument and may represent meaningful additional predictors.

Finally, the study is geographically concentrated in German-speaking urban environments, primarily Munich, Berlin, and Frankfurt. Cultural attitudes toward meeting strangers for physical activities, privacy norms, and digital platform adoption patterns may differ across other urban markets, limiting the cross-cultural transferability of the findings.

6. Conclusion

This thesis set out to examine how a location-based digital platform can support the coordination of shared sports activities while enabling a sustainable platform-based business model in urban environments. Drawing on a sequential mixed methods approach combining a secondary data-based market analysis, ten semi-structured interviews, and a survey of 255 urban sports practitioners, the study addressed two sub-research questions and generated a comprehensive empirical and theoretical foundation for the platform concept examined.

In response to the first sub-research question, the literature review established that digital platform theory, technology acceptance models, sports participation research, and platform business model frameworks collectively provide the conceptual basis for designing a location-based sports coordination platform. Network effects theory highlights local user density as the platform's critical success factor, TAM and UTAUT identify perceived usefulness and trust as the primary adoption determinants in socially embedded digital services, and sports participation research confirms that social barriers and coordination costs are among the most significant constraints on shared physical activity engagement.

Regarding the second sub-research question, the empirical results show a structural gap in the market for sports coordination platforms: there is no existing solution that addresses both the social and the coordinative dimension of shared outdoor sports participation. User needs focus on social connection, reliability, personal control, and coordination simplicity. The barriers are logistical, social and psychological, with safety concerns being a particularly important constraint for female and younger participants. Desired platform features point to the Live Map and Swipe feature as the main coordination mechanisms, supported by a rating system, route privacy controls and lightweight pre-match communication as trust-enabling components.

The quantitative findings confirm that Perceived Usefulness is the strongest predictor of behavioral intention to use ROAM ($\beta=0.637$, $p<0.001$), followed by Trust as a meaningful secondary driver ($\beta=0.116$, $p=0.030$). Together these two constructs account for the majority of explained variance in adoption intent, pointing to a clear design and communication priority: show genuine coordination value while building a credible and transparent trust architecture.

From a practical perspective, the findings support a freemium business model with a geographically focused launch strategy that prioritizes local user density before scaling. Community-oriented growth mechanisms such as partnerships with running clubs and social run communities are likely to be more effective in driving adoption than broad marketing

efforts, given the social proof dynamics found in both the qualitative and quantitative phases. From a theoretical perspective, the study contributes to the literature on digital platform adoption by showing that safety and trust work as relational and gendered constructs in peer-to-peer sports coordination contexts, extending the standard TAM and UTAUT frameworks in ways that matter for the design of socially embedded consumer platforms more broadly.

Several directions for future research come out of this study. Longitudinal research examining whether stated behavioral intentions translate into actual platform adoption would address the intention-behavior gap that is typical of concept-stage evaluations. Cross-cultural studies looking at safety attitudes and adoption dynamics in different urban markets would extend the geographic scope of the findings. Finally, research on the role of identity verification mechanisms in building trust in peer-to-peer physical activity platforms is a particularly underexplored area with significant practical relevance for platform designers.

IV. Bibliography

- Bauman, A., Reis, R., Sallis, J., Wells, J., Loos, R., & Martin, B. (2012). Correlates of physical activity: Why are some people physically active and others not? *The Lancet*. [https://doi.org/10.1016/S0140-6736\(12\)60735-1](https://doi.org/10.1016/S0140-6736(12)60735-1)
- Bort-Roig, J., Gilson, N. D., Puig-Ribera, A., Contreras, R. S., & Trost, S. G. (2014). Measuring and influencing physical activity with smartphone technology: A systematic review. *Sports Medicine*. <https://doi.org/10.1007/s40279-014-0142-5>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. <https://doi.org/10.1191/1478088706qp063oa>
- Business of Apps. (2026). *Strava revenue and usage statistics*. <https://www.businessofapps.com/data/strava-statistics/>
- Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). Sage.
- Crossman, S., Drummond, M., Elliott, S., Kay, J., Montero, A., & Petersen, J. M. (2024). Facilitators and constraints to adult sports participation: A systematic review. *Psychology of Sport and Exercise*, 72, 102609. <https://doi.org/10.1016/j.psychsport.2024.102609>
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340. <https://doi.org/10.2307/249008>
- Eime, R. M., Young, J. A., Harvey, J. T., Charity, M., & Payne, W. R. (2013). A systematic review of the psychological and social benefits of participation in sport. *International Journal of Behavioral Nutrition and Physical Activity*. <https://doi.org/10.1186/1479-5868-10-135>
- Fanning, J., Mullen, S. P., & McAuley, E. (2012). Increasing physical activity with mobile devices: A meta-analysis. *Journal of Medical Internet Research*, 14(6), e161. <https://doi.org/10.2196/jmir.2171>
- Foss, N. J., & Saebi, T. (2017). Fifteen years of research on business model innovation: How far have we come, and where should we go? *Journal of Management*, 43(1), 200-227. <https://doi.org/10.1177/0149206316675927>
- Gawer, A. (2021). Digital platforms' boundaries: The interplay of firm scope, platform sides, and digital interfaces. *Long Range Planning*, 54(5), 102045. <https://doi.org/10.1016/j.lrp.2020.102045>

- Grand View Research. (2025). *Fitness apps market size, share & trends analysis report, 2026-2033*. <https://www.grandviewresearch.com/industry-analysis/fitness-app-market>
- Huyghe, J., D'Hoore, N., & Scheerder, J. (2024). Unveiling the urban sports landscape: Profiling participants, motives, and policy implications. *PLOS ONE*, 19(7), e0306305. <https://doi.org/10.1371/journal.pone.0306305>
- Jacobides, M. G., Cennamo, C., & Gawer, A. (2018). Towards a theory of ecosystems. *Strategic Management Journal*, 39(8), 2255-2276. <https://doi.org/10.1002/smj.2904>
- Kallio, H., Pietilä, A.-M., Johnson, M., & Kangasniemi, M. (2016). Systematic methodological review: Developing a framework for a qualitative semi-structured interview guide. *Journal of Advanced Nursing*, 72(12), 2954-2965. <https://doi.org/10.1111/jan.13031>
- Katz, M. L., & Shapiro, C. (1985). Network externalities, competition, and compatibility. *The American Economic Review*, 75(3), 424-440. <http://www.jstor.org/stable/1814809>
- Ken Research. (2024). *North America sports app market, growth opportunities and future outlook to 2030*. <https://www.kenresearch.com/industry-reports/north-america-sports-app-market>
- Leong, C., Lin, S., Tan, F., & Yu, J. (2024). Coordination in a digital platform organization. *Information Systems Research*, 35(1), 363-393. <https://doi.org/10.1287/isre.2023.1226>
- Middelweerd, A., Mollee, J. S., van der Wal, C. N., Brug, J., & te Velde, S. J. (2014). Apps to promote physical activity among adults: A review and content analysis. *International Journal of Behavioral Nutrition and Physical Activity*. <https://doi.org/10.1186/s12966-014-0097-9>
- Palmié, M., Parida, V., Mäkinen, S., Pérez-Luño, A., & Wincent, J. (2025). Digital-sustainable business models: Definition, systematic literature review, integrative framework and research agenda from a strategic management perspective. *International Journal of Management Reviews*. <https://doi.org/10.1111/ijmr.12380>
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Sage.
- Rochet, J.-C., & Tirole, J. (2003). Platform competition in two-sided markets. *Journal of the European Economic Association*, 1(4), 990-1029. <https://doi.org/10.1162/154247603322493212>
- Rysman, M. (2009). The economics of two-sided markets. *Journal of Economic Perspectives*, 23(3), 125-143. <https://doi.org/10.1257/jep.23.3.125>
- Saldaña, J. (2021). *The coding manual for qualitative researchers* (4th ed.). Sage.

- Sanz-Blas, S., Buzova, D., & Cervera-Taulet, A. (2020). The intention to use fitness and physical activity apps: A systematic review. *Sustainability*, 12(16), 6641. <https://doi.org/10.3390/su12166641>
- Strava. (2024). *Strava releases annual Year in Sport trend report*. <https://press.strava.com/articles/strava-releases-annual-year-in-sport-trend>
- Täuscher, K., & Laudien, S. M. (2018). Understanding platform business models: A mixed methods study of marketplaces. *European Management Journal*, 36(3), 319-329. <https://doi.org/10.1016/j.emj.2017.06.005>
- Teece, D. J. (2010). Business models, business strategy and innovation. *Long Range Planning*, 43(2-3), 172-194. <https://doi.org/10.1016/j.lrp.2009.07.003>
- Van der Heijden, H. (2004). User acceptance of hedonic information systems. *MIS Quarterly*, 28(4), 695-704. <https://doi.org/10.2307/25148660>
- Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science*, 46(2), 186-204. <https://doi.org/10.1287/mnsc.46.2.186.11926>
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425-478. <https://doi.org/10.2307/30036540>
- Vinnikova, A., Lu, L., Wei, J., Fang, G., & Yan, J. (2020). The use of smartphone fitness applications: The role of self-efficacy and self-regulation. *International Journal of Environmental Research and Public Health*, 17(20), 7639. <https://doi.org/10.3390/ijerph17207639>
- Zott, C., Amit, R., & Massa, L. (2011). The business model: Recent developments and future research. *Journal of Management*, 37(4), 1019-1042. <https://doi.org/10.1177/0149206311406265>

V. Appendix A: Semi-Structured Interview Guide

Research Objective: To understand the social dynamics, coordination challenges, and digital tool preferences of urban sports practitioners to inform the design of a location-based platform that facilitates peer-to-peer coordination of shared outdoor sports activities.

Estimated Duration: 45-60 minutes

Interview Type: Semi-structured, conversational

Sampling Method: Purposive sampling

Target Group: Urban residents aged 18-35 who regularly run or cycle outdoors, corresponding to the Gen Z and Millennial demographics identified as the primary user base for socially embedded sports platforms.

Recruitment: Participants are approached directly at running events, social runs, running clubs, and urban outdoor sports locations, as well as through personal networks and social media communities focused on running and cycling.

Interview Setting: Online via video call or in person; audio recorded with prior consent.

Structure: Five sections to ensure systematic coverage of key research themes while maintaining conversational flexibility.

Section A: Warm-Up and Background (Approx. 10 minutes)

Purpose: Build rapport and establish context around the participant's general sports habits and social life.

Guiding Questions:

1. Tell me a little about yourself - where you live, what you do, and how sport fits into your week.
2. How regularly do you go running or cycling, and how does a typical week look for you?
3. Would you describe yourself as someone who prefers training alone or with others? Has that always been the case?

Section B: Social Sports Behavior and Current Coordination (Approx. 10 minutes)

Purpose: Explore how participants currently organize shared sports activities and what role digital tools play in that process.

Guiding Questions:

4. Think of the last time you did a run or ride with someone else. How did that come about, and how did you coordinate it?

5. How do you usually go about finding people to train with, particularly someone you do not already know well?
6. What tools, apps, or platforms do you currently use when coordinating sports activities with others? How well do they work for you?
7. Have you ever joined a running club or social run? What was that experience like?

Probes: "Walk me through exactly how that worked in practice.", "Was there a moment where it felt unnecessarily complicated?", "What did you do when it did not work out as planned?"

Section C: Challenges and Barriers (Approx. 10 minutes)

Purpose: Identify the specific pain points, social anxieties, and structural barriers that make finding and coordinating sports partners difficult.

Guiding Questions:

8. What makes it hard to find a suitable training partner, especially at short notice or in a new city?
9. Have you ever skipped a planned workout because you could not find someone to go with? What was going through your mind at that point?
10. When it comes to doing sports with someone you do not know, what concerns or hesitations come up for you? (e.g., safety, fitness level mismatch, social awkwardness)
11. Are there situations where you would have loved to join a group activity, but something stopped you? What was the barrier?
12. If you could make one thing about finding and coordinating sports partners significantly easier, what would that be?

Probes: "Can you give me a specific example of when that happened?", "How did that affect your motivation to keep trying?", "What would have needed to be different for it to work?"

Section D: Platform Concept Reaction and Feature Preferences (Approx. 15 minutes)

Purpose: Gather reactions to the ROAM concept, assess openness toward location-based coordination technology, and identify the features that would drive adoption and continued use.

Introduction to platform concept: "I would like to show you a concept for a platform called ROAM. ROAM has two core features. The first is a Live Map - similar to Apple's Find My, but for sports. You share your location with people you trust and can see in real

time when your contacts are out running or cycling and spontaneously join them. The second is a Swipe feature - designed for discovering new people. You post an activity or browse through nearby activities and swipe right if you're interested or left if not. The activity creator can set it to open, meaning anyone can join directly and sees the route immediately, or closed, meaning they approve the match first before the exact route is shared."

[Show prototype screenshots or short demo video]

Guiding Questions:

13. What is your immediate reaction to this concept? Does it address something you have actually experienced as a problem?
14. Which features would make you most likely to open and use the app regularly? (e.g., Live Map with contacts, Swipe feature for new people, fitness level matching, rating system, route suggestions, verified profiles, in-app chat)
15. What would make you feel comfortable enough to meet a stranger through this platform for a run or ride?
16. We are also building a rating system into ROAM - after each activity both users rate each other on punctuality, trustworthiness, and whether their fitness level matched what they stated. Does that make the platform feel more trustworthy to you? Is there anything you would add to those criteria?
17. Are there any features that feel unnecessary or that you would not use? Is there anything important that seems to be missing?
18. How do you feel about sharing your real-time location within an app like this? What conditions would need to be met for you to be comfortable with that?

Probes: "Imagine you are using this for the first time on a Sunday morning. Walk me through what that would look like.", "What would make you trust the platform and the people on it?", "Would you use this differently for running versus cycling?"

Section E: Adoption Intent and Closing (Approx. 10 minutes)

Purpose: Assess likelihood of adoption, social influence factors, willingness to pay, and gather any final reflections.

Guiding Questions:

19. Thinking honestly, how likely are you to use something like this in the next few months? What would need to be true for that to happen?

20. Would you be willing to pay for access to this platform? What kind of pricing model would feel fair to you?
21. Would you recommend this to people in your running or cycling community? What would you tell them about it?
22. Is there anything about your experience with sports coordination, or about this platform concept, that we have not covered and that you think is important?

Closing Statement: "Thank you so much for taking the time to share your experiences and thoughts. Your perspective is genuinely valuable in shaping how this platform is designed. Everything you have shared will be kept completely confidential and used solely for academic research."

Notes for Interviewer:

- Approach participants with curiosity and without leading them toward answers
- If a participant brings up an unexpected but relevant topic, follow it - some of the most valuable insights come from unplanned directions
- Note emotional cues such as frustration, enthusiasm, or hesitation for later coding
- Show the prototype in Section D to ground responses in a concrete product experience
- Continue interviews until thematic saturation is reached - typically when no new themes emerge across successive interviews
- Maintain strict confidentiality and anonymity throughout

VI. Appendix B: Coding Tree, Source: Interview data & Literature Review

Theme	Sub-Code	Theoretical Basis	Definition / Coding Rule	Inclusion / Exclusion Criteria	Quote
1) Sports Coordination Behavior & Social Motivations	Social Motivation for Shared Sport	Literature (Eime et al., 2013; Bauman et al., 2012)	Desire to engage in sport with others for social connection or enjoyment	Include mentions of preferring company, social runs, meeting new people. Exclude purely performance-driven statements	"Running isn't just about myself, it's also a way to connect with new people." (I1, April 13, 2026)
	Coordination Effort & Tool Fragmentation	Literature (TAM - Perceived Usefulness)	Use of multiple disconnected tools such as WhatsApp, Strava, and Instagram to coordinate shared activities, resulting in high effort	Include mentions of WhatsApp coordination, back-and-forth messages, tool switching. Exclude mentions of solo training tools	"There were about fifteen messages just agreeing on a time." (I4, April 14, 2026)
	Dependency on Existing Networks	Literature (Crossman et al., 2024)	Reliance on pre-existing social connections for finding training partners, with limited ability to extend beyond known contacts	Include statements about only running with known friends or colleagues. Exclude mentions of running clubs or new contacts	"Most of the time I run with people I know." (I1, April 13, 2026)
2) Pain Points and Barriers to Shared Sports Participation	Coordination Overhead	Literature (TAM - Perceived Usefulness)	Excessive time and effort required to align schedules and meeting points	Include mentions of long message threads, delayed replies, failed coordination attempts. Exclude tool suggestions	"Four days of back and forth on WhatsApp just to organize one run." (I3, April 14, 2026)
	Pace & Schedule Mismatch	Empirical (Inductive Refinement)	Difficulty finding partners who match on both fitness level and availability simultaneously within existing networks	Include statements about pace differences, schedule conflicts. Exclude general fitness discussions	"Finding someone available at the same time who runs at a similar pace, those two things together are surprisingly rare." (I4, April 14, 2026)
	Social Anxiety Around Strangers	Literature (Crossman et al., 2024; TAM - Perceived Risk)	Discomfort or hesitation in initiating contact with unknown individuals for shared sports activities	Include mentions of awkwardness, lack of confidence, not knowing what to expect. Exclude safety-specific concerns	"Outside of a friend or an event that day, I don't really see a way to meet someone new I'd feel comfortable asking to run with." (I2, April 13, 2026)
	Safety Concerns	Literature (TAM - Trust; Ethics)	Fear related to physical safety when meeting unknown individuals outdoors	Include explicit safety concerns, identity verification requests, women-only suggestions. Exclude general trust in platform	"Safety is honestly the first thing, especially as a woman, running with a stranger feels different." (I3, April 14, 2026)
	Motivational Loss from Failed Coordination	Empirical (Inductive Refinement)	Reduction in overall sports participation resulting from unsuccessful attempts to find a training partner	Include mentions of skipped workouts, defaulting to solo training, giving up. Exclude general motivation discussions	"There have definitely been runs that just didn't happen because finding someone at short notice was basically impossible." (I4, April 14, 2026)

3) Platform Concept Reaction & Desired Features	Live Map Appeal	Literature (TAM - Perceived Usefulness; Spontaneity)	Positive reaction to real-time location sharing feature enabling spontaneous joining of active contacts	Include mentions of Find My comparison, spontaneous joining, live visibility of friends. Exclude Swipe-specific reactions	"I can already think of times where I knew a friend was out running and wished I could just join." (I3, April 14, 2026)
	Swipe Feature Reception	Literature (TAM - Perceived Usefulness; Social Matching)	Interest in or hesitation toward the activity discovery and matching feature for connecting with new training partners	Include reactions to swiping mechanic, posting activities, choosing partners. Exclude Live Map reactions	"It gives me the chance to post an activity and actively choose who I go out with." (I2, April 13, 2026)
	Rating System as Trust Enabler	Literature (TAM - Trust)	Recognition of ratings as a credibility mechanism for unknown training partners	Include comparisons to Airbnb, Vinted, eBay ratings. Exclude privacy concerns	"Five or six runs with solid ratings and I'd feel confident meeting them, like buying from a highly rated seller on eBay." (I4, April 14, 2026)
	Open & Closed Activity Control	Literature (TAM - Perceived Risk; Privacy)	Valuation of the ability to control who can join an activity and when the exact route is shared, particularly for safety reasons	Include mentions of route privacy, approval before sharing location. Exclude general location sharing concerns	"The closed route option is really important - I don't want a stranger knowing exactly where I run before I'm comfortable." (I5, April 15, 2026)
	Pre-Match Communication	Empirical (Inductive Refinement)	Desire for lightweight messaging before committing to a shared activity	Include brief chat, confirming pace before meeting. Exclude full messaging requests	"Just a quick exchange to get a feel for the person before you agree to meet." (I3, April 14, 2026)
	Additional Safety Features	Empirical (Inductive Refinement)	Suggestions for supplementary safety mechanisms beyond the rating system	Include SOS button, women-only filter, minimum group size, demographic filters. Exclude rating system mentions	"Just reassuring to know it exists, even if you never use it." (I8, April 16, 2026)
4) Platform Adoption Intent & Trust Conditions	Critical Mass as Condition for Adoption	Literature (Katz & Shapiro, 1985 - Network Effects)	Recognition that platform value depends on sufficient local user density	Include concerns about empty platform, dating app comparisons. Exclude pricing discussions	"Like any dating app, it needs to have enough users to actually work." (I2, April 13, 2026)
	Trust Through Verified Credibility	Literature (TAM - Trust)	Expectation of transparent identity and behavioral verification mechanisms beyond self-reported information	Include identity verification requests, distinction from ratings. Exclude general platform trust	"Some kind of identity check would be needed before I'd feel reassured." (I9, April 17, 2026)
	Risk of Dating App Dynamics	Empirical (Inductive Refinement)	Concern that photo-based matching distorts selection toward attractiveness	Include concerns about appearance-based matching, sports Tinder comparisons. Exclude general privacy concerns	"It would be a shame if the app becomes a kind of sports Tinder where looks matter more than whether someone runs at the right level." (I7, April 16, 2026)
	Age & Demographic Adoption Barriers	Empirical (Inductive Refinement)	Lower adoption intent among older participants due to perceived irrelevance	Include age-specific hesitations, concerns about app being built only for young users. Exclude general skepticism	"If the app feels like it's only built for twenty-year-olds, I won't go near it." (I9, April 17, 2026)
	Willingness to Pay	Literature (TAM - Perceived Value)	Assessment of acceptable pricing models and conditions for payment	Include freemium preferences, monthly fee suggestions, conditional payment logic. Exclude feature requests	"Five euros a month feels fair, if it actually saves me the coordination hassle." (I3, April 14, 2026)
	Social Proof & Peer Endorsement	Literature (Venkatesh et al., 2003 - Social Influence)	Peer usage and visible success stories accelerate individual adoption	Include mentions of friends using the app, referral logic, seeing others succeed with it. Exclude individual motivation	"If I like the app, I'd definitely recommend it." (I1, April 13, 2026)

VII. Appendix C: Interview Sample Summary Table, Source: Interview data

ID	Gender, Age, Location	Occupation	Sports Activity	Main Pain Points	Tools Used	Likelihood to Use ROAM	Short Profile
I1	M, 23, Munich	Ralph Lauren employee	Running 3-4x/week	Hard to find partners at short notice, social barriers at running clubs	WhatsApp, Strava, Instagram	High - would try immediately	Social runner seeking new connections, values trust and reliability
I2	M, 23, Munich	Business student	Running 1-2x/week, gym 3-4x/week	Coordination effort, no structured way to meet new running partners	WhatsApp, Instagram	High - conditional on critical mass	Motivated by social runs, needs confidence before meeting strangers
I3	F, 27, Munich	Management consultant	Running 3-4x/week, cycling on weekends	Coordination overhead, safety as woman, pace mismatch with friends	WhatsApp, Strava	High - Live Map immediately, Swipe after time	Safety-conscious female runner, values rated profiles and route control
I4	M, 31, Berlin	Software engineer	Running 2x/week	15 messages to agree on a time, unreliable partners, no social sports structure	WhatsApp	High - would download tomorrow	Pragmatic runner, values reliability and simplicity above all
I5	F, 24, Frankfurt	Master's student	Running 2-3x/week, cycling	Coordination overhead, safety concerns, social anxiety around strangers	WhatsApp	Medium-High - needs trust mechanisms first	Digitally savvy but cautious, values clean UX and closed route option
I6	F, 54, Munich	Part-time, mother	Running, swimming	Pace mismatch, fear of being judged, friends unlikely to adopt app	WhatsApp, phone	Medium - only if friends join	Older participant, values Live Map over Swipe, skeptical of new tech
I7	M, 29, Munich	Employed	Running, cycling	Social bubble at running clubs, hard to meet people after relocating	WhatsApp, Instagram	Medium-High - concerned about dating app dynamics	Recently relocated, wants new network, worried about photo-based matching
I8	F, 17, Germany	Exchange student	Running, Hiking	Safety as young female in unfamiliar environment, no local network	WhatsApp	Medium - needs women-only filter and group minimum	Youngest participant, strong safety focus, suggests SOS button and age filter
I9	M, 51, Munich	Pharmacist	Running, Cycling, Gym	Irregular schedule, safety concerns as parent, skeptical of stranger meetings	WhatsApp, phone	Medium - only Live Map, needs identity verification	Older participant, parental safety perspective, values verified profiles
I10	M, 24, Munich	Employed	Running, boxing, padel	Hard to coordinate outside fixed schedule, no structured way to find partners	WhatsApp, Instagram	High - sees immediate value	Recently relocated to Munich, wants to build local network through sport

VIII. Appendix D: Survey Questionnaire

Research Objective: To validate and extend the qualitative findings from the semi-structured interviews by examining the relationship between perceived usefulness, perceived ease of use, social influence, trust, and the behavioral intention to use a location-based peer-to-peer sports coordination platform among urban sports practitioners.

Estimated Duration: 5-7 minutes

Survey Type: Quantitative, self-administered online survey

Sampling Method: Purposive sampling targeting urban sports practitioners aged 18-35

Distribution: Distributed digitally via running communities, social media channels focused on outdoor sports, and personal networks. A pilot test was conducted prior to full distribution to verify question clarity, scale consistency, and technical functionality.

Scale: Five-point Likert scale (1 = Strongly disagree, 5 = Strongly agree) unless stated otherwise. Survey items are adapted from validated scales in the technology acceptance literature, specifically TAM (Davis, 1989) and UTAUT (Venkatesh et al., 2003).

All items in Parts 4-7 (T1-T3), Part 8, and Part 10 are measured on a five-point Likert scale: 1 = Strongly disagree, 2 = Somewhat disagree, 3 = Neutral, 4 = Somewhat agree, 5 = Strongly agree. Parts 7 (T4), 9, and 11 use multiple choice formats.

Introduction to Participants

Thank you for taking part in this survey. This study is conducted as part of a Master's thesis at Católica Lisbon School of Business and Economics and investigates how urban sports practitioners coordinate shared outdoor activities and how a digital platform could support this process. Your responses are completely anonymous and will be used exclusively for academic research purposes. The survey takes approximately 5 to 7 minutes to complete. There are no right or wrong answers. By proceeding, you confirm your voluntary participation.

Part 1: Screening

These questions ensure responses come from the relevant target group. If your answers do not match the target profile, the survey will end automatically.

S1. How old are you?

- Under 18
- 18-24
- 25-29

- 30-35
- 36 or older

(Terminate if: under 18 or 36 or older)

S2. What is your gender?

- Male
- Female
- Non-binary
- Prefer not to say

S3. Where do you currently live?

- In a major city or urban area
- In a smaller town or suburban area
- In a rural or countryside area

(Terminate if: suburban or rural)

S4. How often do you engage in outdoor sports activities?

- Never
- Less than once a month
- Once or twice a month
- Once or twice a week
- Three or more times a week

(Terminate if: never or less than once a month)

S5. Which outdoor sports do you regularly engage in? (Select all that apply)

- Running
- Cycling
- Padel
- Tennis
- Football
- Other: _____

Part 2: Current Sports Coordination Behavior

Q1. How often do you engage in outdoor sports together with other people?

(1 = Never, 5 = Always)

1 — 2 — 3 — 4 — 5

Q2. How difficult do you find it to spontaneously find a suitable sports partner at short notice? *(1 = Very easy, 5 = Very difficult)*

1 — 2 — 3 — 4 — 5

Part 3: Platform Concept - ROAM

Please review the platform concept and visual materials provided before answering the remaining questions

“ROAM - Reach Others And Move - is a location-based app that connects you with people who love outdoor activities, whenever and wherever you are. Spot a friend already out running? Join them in seconds via the Live Map - think Apple's Find My, but for sport. Looking for someone new? Browse nearby activities with the Swipe feature and connect with people who match your pace and schedule. You decide who joins you - keep your activity open for anyone or approve requests before sharing your exact route. A built-in rating system builds trust over time, so you always know who you are heading out with. No planning. No group chats. Just go.”

Part 4: Perceived Usefulness *(1 = Strongly disagree, 5 = Strongly agree)*

PU1. Using ROAM would make it easier for me to find suitable sports partners.

1 — 2 — 3 — 4 — 5

PU2. ROAM would help me be more physically active by reducing the challenge of finding someone to train with.

1 — 2 — 3 — 4 — 5

PU3. Using ROAM would save me time compared to how I currently coordinate shared sports activities.

1 — 2 — 3 — 4 — 5

Part 5: Perceived Ease of Use *(1 = Strongly disagree, 5 = Strongly agree)*

PEOU1. I think it would be easy to learn how to use ROAM.

1 — 2 — 3 — 4 — 5

PEOU2. Finding and joining a nearby activity on ROAM would require little effort.

1 — 2 — 3 — 4 — 5

PEOU3. I think the interaction with ROAM would be clear and straightforward.

1 — 2 — 3 — 4 — 5

Part 6: Social Influence (*1 = Strongly disagree, 5 = Strongly agree*)

SI1. People important to me would think using ROAM is a good idea.

1 — 2 — 3 — 4 — 5

SI2. If my friends or training partners were using ROAM, I would be more likely to use it too.

1 — 2 — 3 — 4 — 5

SI3. I would feel more motivated to use ROAM if I knew others in my sports community were already using it.

1 — 2 — 3 — 4 — 5

Part 7: Trust (*1 = Strongly disagree, 5 = Strongly agree*)

T1. I would feel safe meeting a person I connected with through ROAM for a shared sports activity.

1 — 2 — 3 — 4 — 5

T2. I trust that ROAM would handle my personal data and location information responsibly.

1 — 2 — 3 — 4 — 5

T3. I would feel comfortable sharing my real-time location within the ROAM app.

1 — 2 — 3 — 4 — 5

T4. What would make you feel more comfortable and safe when using a platform like ROAM? (Select all that apply)

- Verified user profiles - identity verification via ID or social media account
- User ratings and reviews - ability to rate activity partners after each session
- Emergency SOS button - in-app button that shares your live location with an emergency contact
- Activity check-in system - automatic notification to a trusted contact when your activity starts and ends
- Other: _____

Part 8: Attention Check

AC1. This question is included to ensure response quality. Please select "Somewhat agree" as your answer. (*1 = Strongly disagree, 5 = Strongly agree*) 1 — 2 — 3 — 4 — 5

[Flag responses that do not select 4]

Part 9: Feature Preferences

FP1. Which of the following features would be most important to you when using ROAM?

(Select up to 3)

- Live map showing nearby activities in real time
- Swipe feature to discover new training partners
- Open/Closed activity setting for privacy control
- Matching based on fitness level and pace
- Verified user profiles for safety
- Route suggestions based on location
- In-app chat with activity partners
- Carbon footprint tracker showing environmental impact of your activities
- Group challenges and community leaderboards
- Other: _____

Part 10: Behavioral Intention to Use (*1 = Strongly disagree, 5 = Strongly agree*)

BI1. I intend to use ROAM to find sports partners once it becomes available.

1 — 2 — 3 — 4 — 5

BI2. I can imagine using ROAM regularly as part of my sports routine.

1 — 2 — 3 — 4 — 5

BI3. I would recommend ROAM to friends or people in my running or cycling community.

1 — 2 — 3 — 4 — 5

Part 11: Willingness to Pay

WP1. Which pricing model would you find most acceptable for ROAM? (Select one)

- Completely free with basic features
- Freemium - free basic access with optional paid premium features
- Monthly subscription (e.g., €3-5/month)
- One-time purchase
- I would not be willing to pay under any circumstances

Closing Statement

Thank you for completing this survey. Your responses contribute directly to the development of a platform concept designed to make shared outdoor sports more accessible and social. All data will be treated with complete confidentiality and used exclusively for academic purposes.

Notes for Researcher:

- Conduct a pilot test with 3-5 participants before full distribution
- Screen participants strictly based on age, urban residence, and sports frequency
- Flag and exclude responses that fail the attention check
- Aim for a minimum of 50 usable responses for meaningful regression analysis
- Distribute via running clubs, social run events, sports-focused social media groups, and personal networks

IX. Appendix E: Regression Results - Key Drivers of Behavioral Intention to Use ROAM

Variable	β	SE	t	p	Significance
Intercept	0.878	0.270	3.256	0.001	**
Perceived Usefulness (PU)	0.637	0.048	13.161	< 0.001	***
Perceived Ease of Use (PEOU)	0.028	0.062	0.456	0.649	n.s.
Social Influence (SI)	0.042	0.068	0.621	0.535	n.s.
Trust	0.116	0.053	2.177	0.030	*
Model fit: $R^2 = 0.481$, Adjusted $R^2 = 0.472$, N = 254			*** $p < 0.001$ ** $p < 0.01$ * $p < 0.05$ n.s. not significant		

Source: Own illustration based on survey data. Dependent variable: Behavioral Intention to use ROAM (BI). Independent variables: Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Social Influence (SI), Trust. Analysis conducted using Python