

6BUIS020W – Final Year Project Report

GoWander

An overview of the C2C e-commerce model and how it can be used to create a 2-sided e-marketplace.

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This report is submitted in partial fulfillment of the requirements for the

BSc (Hons) Business Information Systems

at the University of Westminster.

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30/04/2024

Declaration

This report has been prepared based on my work. Where other published and unpublished source materials have been used, these have been acknowledged in references.

Word Count:

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Date of Submission: 01/05/2024

Abstract

This project aimed to analyse, from a business and strategic point of view, the C2C business model and how it can be used to implement a travel marketplace that allows travellers to purchase services from local providers in various countries. These goals extend a wide variety of factors associated with designing and establishing a travel marketplace within the area of Business Information Systems. Every aim adds to the project's overall success and provides substantial learning opportunities for the being graduate student.

Initially, the project aimed to assess and address the natural business challenges associated with such marketplaces and the analysis of various methods that would allow the platform to compete in its industry and gain a competitive advantage.

Additionally, the project aimed to prototype a user-friendly platform that facilitates searching for services globally and enables users to provide their services. The conception of the business idea and the development of the platform prototype necessitated a sequence of analyses to investigate the present players in the market, the travel industry and trends, the forces that influence and shape these sectors, the macro and micro implications, and the business strategies necessary to establish the platform as a profitable enterprise. In addition, qualitative and quantitative research will be conducted during the initial analysis to get further insights.

An initial anonymous survey was conducted to collect qualitative data, and individuals from various age groups were questioned. This study aimed to determine individuals' preferences and patterns when it comes to travel. Questionnaires are a research instrument that can be employed for fact-finding in system development initiatives. They consist of a sequence of written questions. The questionnaire creator frequently limits the variety of replies that respondents can make by offering them options. (Bennett, McRobb, Farmer, 2005).

Upon completion of the investigation, an Agile methodology was implemented to ensure a project timeframe with defined milestones.

The implementation of the platform included using a website builder, Framer. The platform allows university students to request a free CMS (Content Management System) plan. Various tools have been used to register and capture the data from the prototype such as Google Form, Calendy, FormSpark, and FramerAuth. All of these tools were utilised to implement some of the basic functionalities highlighted during the project requirement proposal.

Following the completion of the platform, a set of Business, IT and IS were created to define where the business aspires to go and how it expects to go there. These are defined by a set of decisions highlighting long- and short-term actions.

The construction of the prototype aims to simulate an actual website involving several external tools for its realisation, including the knowledge gained throughout the modules across the 3 academic years. The critical aspect is

that the project focuses more on the business, strategic analysis, and system design.

Acknowledgements

The author appreciates their supervisor, Tamas Kiss, for the feedback, constructive criticism, and guidance for the assignment. A significant appreciation to Huseyin Dagdeviren and Panagiotis Chountas for their effort to provide the students with valuable resources, materials, and input for the project's execution and report writing. The author offers excellent gratitude and thanks to all the professors and tutors who contributed positively to the student's progress throughout their academic journey. The author also thanks and expresses gratitude to the participants who offered their time and valuable feedback during the project's development and testing phases. Lastly, the author immensely appreciates their family's ongoing backing, encouragement, and understanding throughout their educational adventure and the duration of this pursuit.

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1. Introduction

Mission Statement

Helping travellers effortlessly access and enjoy local services overseas is GoWander goal. We seek to remove limitations like language barriers, lack of trust, and limited choices. We aim to provide a straightforward platform where people can easily book or request various services to immerse themselves in different cultures and have incredible adventures in this interconnected world.

1.1 Problem statement

When looking to choose services offered abroad, visitors meet challenges such as a lack of trust in service quality, language obstacles, and limited options. The need for a platform that allows people to rapidly access and book multiple services while travelling and staying in touch with locals is more critical than ever in an increasingly connected world.

To address these challenges, this project wants to provide a business and strategic analysis by proposing a 2-sided marketplace named (GoWander) where travellers can book and request a range of services from locals around the globe.

Many P2P marketplaces in different industries exist, such as Airbnb, Viator (Formerly TripAdvisor Experiences), Etsy, Uber, Airtasker, and more.

Therefore, there are already many competitors and alternatives in the market segment. If we consider a real-world scenario, when a user is abroad and requires a specific service, they must use several programs to receive the requested service.

If we analyse the different platforms described above, we may notice both user and service provider perspectives:

User	User / Service Provider
Airbnb to book accommodation before their departure	Hosts other users (Guest) through Airbnb
Viator to arrange experiences connected to their vacation itinerary	Provides tours, excursions and other services on Viator (Former TripAdvisor experience)
Purchases things from Etsy	Sells items on Etsy
Uber to book a ride or book a planned ride at a greater cost	Provide rides through Uber (In this context, the driver must be online)
Airtasker to hire freelance labour	Selects the sort of job they wish to perform

Figure 1. One user and 2 points of views

It is apparent that for all these activities, the user would need to sign up on all these platforms and book the desired activities separately. Considering a scenario where somebody is abroad and wants to schedule these services all in one platform, I am proposing a solution to tackle this need.

This study wants to research the landscape of the C2C business model and some of the key participants in this landscape from different industries. The primary goal is to provide a business and strategic analysis of a 2-sided marketplace named (GoWander) and how it can place itself into the current market. The secondary goal is to provide a platform prototype to simulate how it would work in the real world.

To accomplish this, we will strongly utilise analysis techniques thoroughly discussed in the Strategic Management of Information Systems and Information Driven Entrepreneurship and Enterprise modules. These tools will enable us to conduct strategic analyses to comprehend the factors, actors, and conditions impacting the firm's progression.

The prototype aims to showcase some use cases highlighted during the prototype design and how it would act as an intermediary between tourists and residents. Travellers will have the option to select from a variety of services provided by the local residents. Alternatively, they

can also make a specific service request for the chosen city. The platform aims to narrow the divide between individuals and local service providers, enhancing their travel experiences by making them more pleasant, genuine, and mutually beneficial. This project proposal outlines the fundamental aspects of the platform and emphasises that with meticulous execution and continuous enhancement.

1.2 Delivered Aim and Objectives

Objective 1: Through the analysis of relevant data regarding the C2C business model, identify the benefits and disadvantages of implementing that model in addition to the studies of the enterprises operating in a similar paradigm.

Objective 2: Conducted thorough strategic assessments by employing tools that helped to understand the internal and external forces that could influence the firm.

Objective 3: Proposed a viable business and income stream model for the pseudo-company by examining the key factors, such as economic considerations and regulatory components.

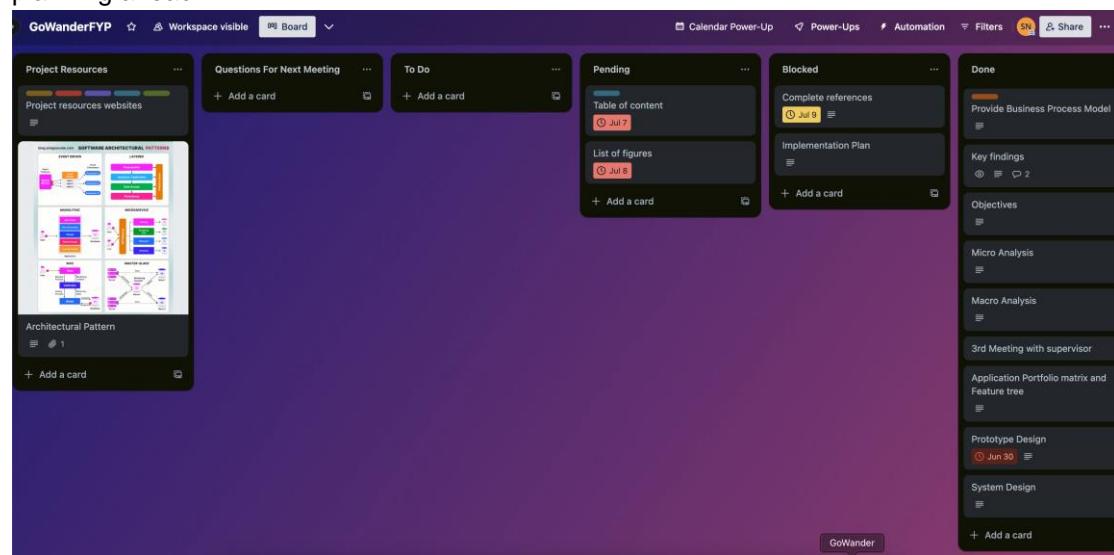
Objective 4: Gathered requirements through elicitation techniques from students using an anonymous questionnaire to understand the business better. The sample size included 44 people. (Section 4)

Objective 5: Based on the findings from Objectives 3 and 4, construct an appropriate System Design plan by building various UML diagrams to highlight the critical functioning features of the prototype GoWander. This involved investigating design principles that are current with the industry standard.

Objective 6: Results from Objective 4 and Objective 5 were used to construct the online application using a low-code website builder called Framer.

Objective 7: Compare the web application's features with the requirements and system design by validating all the criteria highlighted during the planning phase.

As illustrated in Figure 1, the project timeline was divided into various stages according to the academic year. Personal matters caused the project to be postponed; hence, it was not finished on time. Early on, risks were identified and considered by taking proactive steps like planning ahead.



2. Background

Before proposing GoWander's business model and analysis, The chapter reviews relevant literature, focusing on the definition of the C2C business model, its impact on the technology industry, the existing rivals in the market, and the possible benefits for businesses.

2.1 An overview of the C2C model and analysis:

E-commerce is a relatively new business model, resulting in a significant shift in the global production method. In E-Commerce, we have various business models, namely B2B, B2C, C2C, and C2B. (Jhawar, 2022)

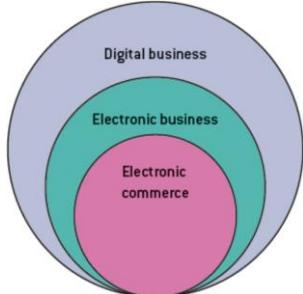


Figure 3. E-commerce domain

Two implementations of C2C e-commerce are credited with its origin. These are classified and auction. The oldest auction house is Stockholm Auction House, which was established in Sweden in 1674. Auction, however, has been recorded as far back as 500 B.C. (Kurihara et al., 2005) C2C (Consumer-To-Consumer), or peer-to-peer (P2P), is an e-commerce model in which consumers sell their products or services directly to other consumers. It differs from business-to-consumer, where the primary objective of the business is to provide items or services to individual consumers. The C2C model is highly favoured in e-commerce because it expands business owners' consumer base and reaches a broader audience.

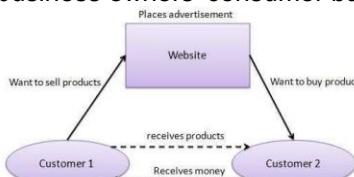
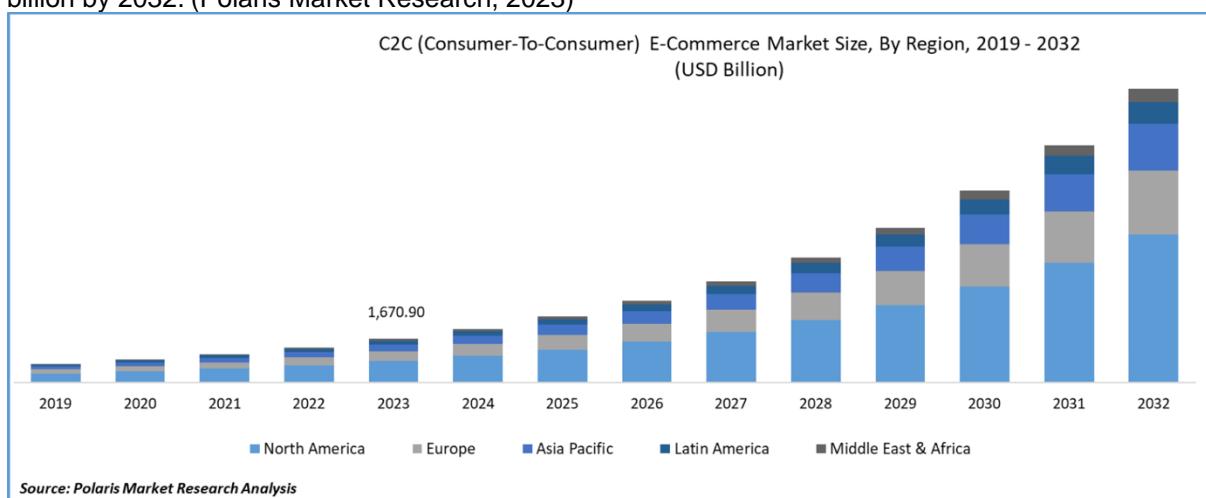


Figure 4. Customer to Customer Model (C2C) Tutorialspoints, (2019)

The C2C (Consumer-To-Consumer) e-commerce market was valued at USD 1,670.90 billion in 2023. The market is anticipated to grow from USD 2,061.22 billion in 2024 to USD 11,216.30 billion by 2032. (Polaris Market Research, 2023)



Source: Polaris Market Research Analysis

Figure 5. C2C market trend 2019-2032 (Polaris Market Research, 2023)

The growing adoption of these marketplaces stimulates the market, empowering consumers with multiple options from various sellers. (Polaris Market Research, 2024) This enables smooth comparison of items and pricing and even bargaining for the best deal, boosting customer happiness and responding to the pursuit of value for money. Consequently, the expansion of the

C2C e-commerce sector is triggered. C2C e-commerce operates within loose standards, primarily focusing on data security, financial protection, and seller eligibility checks. This increasing need for online transactions and variations will increase the C2C market size in the next few years. C2C websites are also known as P2P platforms. The notion strongly resembles classified advertisements locally within a neighbourhood or community. (Staff, B. and Taylor, J. 2021) In the C2C e-commerce business model, individual consumers serve as buyers and sellers, offering goods or services to one another without the intervention of traditional corporations or intermediaries. C2C platforms provide a virtual marketplace where users can securely create listings, negotiate prices, and complete transactions. Common examples of C2C platforms include online auction sites, classified marketing websites, and peer-to-peer renting platforms.

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2.2 Main competitors and examples of C2C marketplaces

Companies operating in different sectors in C2C paradigm:

Airbnb	Viator	Etsy	Uber	Airtasker
The pioneering platform for short-term rentals, Airbnb connects travellers with hosts who offer unique accommodations worldwide, ranging from cosy apartments to exotic treehouses.	The pioneering platform for short-term rentals, Airbnb connects travellers with hosts who offer unique accommodations worldwide, ranging from cosy apartments to exotic treehouses.	Catering to artisans and creatives, Etsy provides a marketplace for handmade and vintage goods. It allows independent sellers to showcase their unique products and connect with buyers who appreciate craftsmanship and creativity.	This ride-sharing giant connects passengers with drivers who provide transportation services on-demand, offering a convenient and cost-effective alternative to traditional taxis or public transit.	An online and mobile marketplace where users can outsource various tasks.

Figure 6. Companies using C2C model

A detailed comparison of the company's business is included in the appendix. Please click [here](#) to view it.

2.3 Benefits and disadvantages of adopting a C2C business model for an e-marketplace:

Benefits	Disadvantages
<p>Empowerment: C2C marketplaces allow individuals to capitalise on their assets, talents, and knowledge. These platforms provide an equal opportunity for homeowners to rent a room and for creative entrepreneurs to showcase their handcrafted products, allowing everyone to participate in the economy.</p> <p>Improved profitability - The C2C e-commerce business model operates without any intermediaries. The profitability is enhanced by reducing the cost of the product or service.</p> <p>Larger Customer Base - The online nature of the C2C e-commerce marketplace enables your items and services to be easily reached by a global audience, hence enhancing the opportunities for conversion.</p> <p>Security procedures and background checks are in place to safeguard customers from potential fraudulent individuals posing as sellers.</p> <p>Enhanced accessibility: Peer-to-peer / C2C markets facilitate seamless connections between buyers and sellers. By just clicking, customers can conveniently access a wide array of items and services from various parts of the globe, thereby eliminating geographical limitations and enhancing trade prospects.</p> <p>Flexibility: C2C marketplaces provide flexibility and independence not seen in traditional retail models, benefiting customers and sellers. Sellers have the autonomy to determine their prices, oversee their inventory, and dictate the conditions of the sale. On the other hand, buyers benefit from the ease of exploring, comparing, and acquiring goods or services according to their preferences. The model of entrepreneurship is flexible. Users do not need to be online continually. As long as they can swiftly reply to the consumer and deliver the items on schedule, it will usually not damage the online company. (Xu, 2011)</p> <p>P2P markets promote community building by facilitating connections between users who frequently possess similar interests, values, or requirements. Features such as ratings, reviews, and forums enhance communication and foster trust, establishing a friendly environment where users can gain knowledge from one another and establish significant relationships.</p>	<p>Competition - In a marketplace where many sellers are providing a similar product or service can be daunting for some sellers or business owners, primarily when they must compete with products and services of lower price, better reviews, or higher quality.</p> <p>Platform Fees - Service fee for using the platform on a standard, recurring fee, or a profit percentage basis.</p> <p>Issues with Sellers - Many platforms have customer protection policies (on both sides), but issues may arise with the quality of products/services, payment handling, delivery, or communication between the parties involved, which can be a burden.</p>

Figure 7. Benefits vs disadvantages using the C2C marketplace

2.4 Proposed model, E-business categorisation

An electronic business (e-business) is one in which ICT supports its internal value chain and external value network. The internal value chain comprises the set of activity systems via which the business delivers a product or service to its consumers. The external value network includes the activities, relationships and flows of value between the organisation and actors in its external environment. (Beynon-Davies, 2020)

Since the platform has not been on the market or performed in any competitive environment, YouWander will face intense rivalry. YouWander's primary competitors have positives and cons. Still, researching the biggest ones is worth discovering how YouWander wants to obtain a competitive advantage and place itself in the market.

- Form of Operation: dot com**

The proposed business idea is e-commerce, as all operations would be conducted online.

The company will serve as an intermediary between customers.

The choice of operating as a DOT com is due to the absence of a tangible product that needs to be sold or delivered. All the services a consumer requests or a service provider is ready to provide will be catalogued on the website, eliminating the need for physical inventory as the business will operate only online.

- Dimension: Pure E-Commerce** (Digital product, Digital process, Physical and digital delivery)

Our business operates entirely in the E-commerce industry, without any physical presence. Users can book or request services online through our platform, and the service provider will deliver the requested service (Physical and digital).

The sole activities that our platform will do are:

- List the customer's requests
- List the services provided by the service provider
- Handle the customer reservations
- Process the booking payments

Business classification: C2C service marketplace

Service marketplaces offer a place for service providers and their customers to meet and cooperate under beneficial conditions. Our business will be classified as a C2C as the customers will interact with other customers to request services and offers.

Hoffman and Novak (1996) suggested that C2C interactions are a vital characteristic of the Internet that is important for companies to consider. Still, these have become so popular in recent years, with the growth of always-on broadband connections and mobile access to the web. (Chaffey et al., 2019)

<i>Horizontal vs vertical portal</i>	<i>Product vs service marketplace</i>	<i>Local vs global operations</i>
GoWander has vertical portal-type marketplaces allowing users to request or book numerous services and service providers to list the same without sticking to a specific niche.	GoWander is a service marketplace that acts as an intermediary between users.	GoWander operates globally

Figure 8. Business classification grid

E-Commerce business model: 2-sided marketplace (Consumer to Consumer)

We generally consider a two-sided market to be one in which at least two distinct sets of agents (or sides) interact through an intermediary, the platform, and in which the behaviour of each set of agents directly impacts the utility or the profit of the other set of agents. (Rysman, 2009)

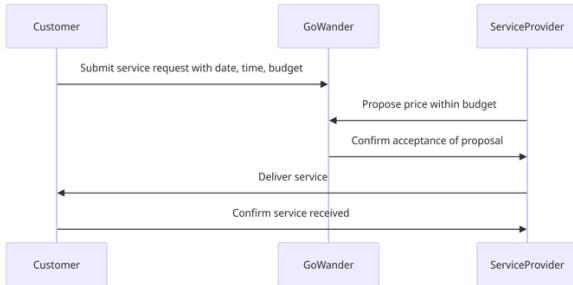


Figure 9. Example diagram of a 2-sided marketplace

2.5 Business Model Canvas

A business model is a way of expressing the core design for some value-creating system. (Jullien et al., 2021)

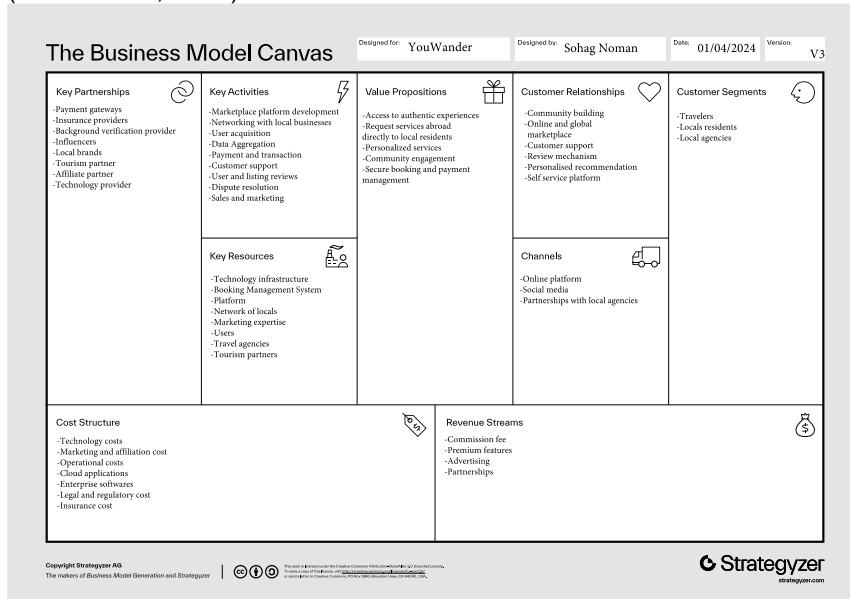


Figure 10. GoWander Business Model Canvas

Segments	<ul style="list-style-type: none"> • Travellers: Users seeking authentic travel experiences and local services abroad • Service providers: Local offering services and experiences in their respective regions.
Value Propositions:	<ul style="list-style-type: none"> • Access to Authentic Experiences: Users can explore local culture and book services and activities not typically available through traditional channels. • Personalised Services: Tailored recommendations and services based on travellers' preferences and interests. • Community Engagement facilitating connections between travellers and locals, fostering cultural exchange and mutual understanding.
Channels	<ul style="list-style-type: none"> • Online Platform: Website for browsing and booking services. • Social media: Leveraging social networks for user engagement, reviews, and marketing. • Partnerships: Collaborating with travel bloggers, influencers, and tourism boards for promotion
Customer Relationships:	<ul style="list-style-type: none"> • Community Building: Establishing a vibrant online community through forums, user-generated content, and events. • Customer Support: Aiding and resolving issues promptly to ensure a positive user experience. • Review Mechanism: Gathering feedback and reviews to improve services and maintain trust.
Key partners	<ul style="list-style-type: none"> • with trusted payment gateways for payment processing. • Collaboration with insurance providers for insurance covering both the traveller and service provider. • Background verification provider to verify the user's identity. • Collaboration with cloud services providers to maintain the platform's performance and security. • Partnerships with influencers or brands that can enhance visibility, usage, awareness and trust. • Partnership with local authorities to promote social initiatives
Revenue Streams:	<ul style="list-style-type: none"> • Service Fees: Charging a percentage of transactions made through the platform on both users' side. • Premium Features: Offering subscription-based access to advanced search filters or priority support. • Advertising: Partnering with local businesses for targeted advertising on the platform.
Key Resources:	<ul style="list-style-type: none"> • Infrastructure: Reliable servers, databases, and security measures to support the online platform. • Network of Locals: Recruiting and vetting locals offering services in various destinations. • Marketing Expertise: Skilled personnel for digital marketing, content creation, and community management.
Activities	<ul style="list-style-type: none"> • Platform Development: Continuous improvement and maintenance of the website. • User Acquisition: Marketing campaigns, SEO optimisation, and referral programs to attract both travellers and locals. • Quality Assurance: Ensuring the authenticity and reliability of services through reviews, ratings, and verification processes.
Cost Structure:	<ul style="list-style-type: none"> • Technology Costs: The online platform's development, maintenance, and hosting fees. • Marketing Expenses: Advertising, content creation, and promotional activities. • Operational Costs: Customer support, administration, and legal expenses.

Figure 11. Detailed BMC

2.6 Internal and External contexts

The beginning point of any digital business and/or e-commerce strategy should be to assess the environment, i.e. the marketplace, in which a business works. Generally, an organisation has two environments (Chaffey et al., 2019) :

- Macro-environment - things outside of the organisation that indirectly influence its activities.
- Micro-environment - internal elements directly influencing the business, such as suppliers, competitors, and customers. (Chaffey et al., 2019)

Microenvironment Analysis:

Porter's Five Forces model is an effective tool for understanding the competitive landscape. GoWander's case is helpful because it analyses various forces, such as competitive power in the sector, industry structure, and the bargaining power of customers and suppliers.

Porter's Five Forces analysis is a conceptual framework devised by Michael E. Porter for evaluating a company's competitive landscape. (Rysman, 2009) An organisation operates inside a specific industry, and to thrive, it must effectively manage the competitive dynamics present in that industry. (Ward and Peppard , 2011)

Porter's Five Forces Analysis for GoWander

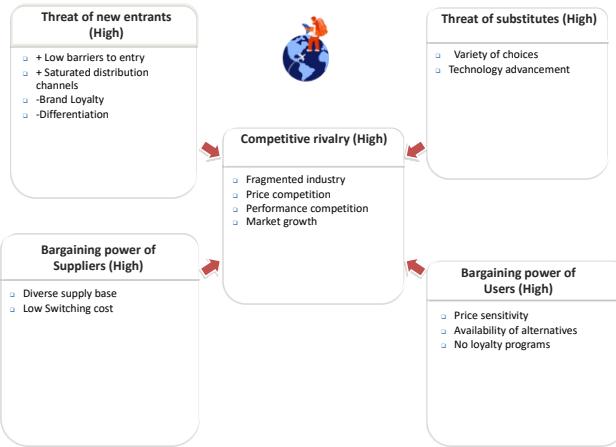


Figure 12. Porter 5 forces diagram

See the figure below for a detailed Porter's 5 forces analysis:

	GoWander
Threat of New Entrants – High	<ul style="list-style-type: none"> Low barriers to entry: Technology-based platforms can be relatively easy to start, requiring moderate initial investment and technical knowledge. (i.e.: No code platform builders) Saturated distribution channels and platforms (i.e.: AI tools) Brand loyalty: While significant players might have strong brand recognition, new entrants can quickly gain traction if they offer unique features, better prices, or enhanced user experiences. Differentiation: New entrants can quickly differentiate themselves by targeting niche markets or offering innovative features that improve the user experience, making the sector more competitive.
Bargaining Power of Suppliers – Moderate to High	<p>In a consumer-to-consumer (C2C) framework, suppliers are individuals who also act as consumers and offer their services by listing them. They possess a substantial ownership interest and exert considerable control, as they directly contribute to the nature and diversity of the marketplace.</p> <ul style="list-style-type: none"> Diverse supply base: In a e-marketplace available globally, suppliers would be service providers from various countries with different offerings. Their power varies by exclusivity and the uniqueness of their services. Switching costs: For standard services (like tour offering, ride offering, etc.), switching costs for the marketplace might be low; however, for specialized or unique services, suppliers may wield more power.
Bargaining Power of Buyers - High	<ul style="list-style-type: none"> Price sensitivity: Travelers often compare options across multiple platforms looking for the best deals, which increases their bargaining power. Availability of alternatives: Numerous alternatives like direct booking through provider sites or other competitive platforms enhance buyer power. No loyalty programs: Unlike traditional B2C models, C2C platforms often lack extensive loyalty programs, which reduces barriers for buyers to switch platforms.
Threat of Substitute Products or Services – High	<ul style="list-style-type: none"> Variety of choices: Buyers and sellers might opt for self-organizing their travel plans or using other forms of collaborative consumption that bypass marketplaces entirely, such as social media groups. Technology advancements: The ease of finding and booking services directly or through new apps and platforms serves as a potential substitute.
Rivalry Among Existing Competitors – Very high	<ul style="list-style-type: none"> Fragmented industry: Many players exist, from large platforms like Airbnb and Booking.com to niche sites like Air tasker to provide specific types of services. Price competition: Heavy price competition due to low switching costs for users and high transparency of offerings. Competition includes not only price, but also performance, user experience, and reduced transaction fees. Market growth: Many players are in this sector from a long time with more experience and resources. This can delay the growth process of a business shifting constantly its focus from market growth to competitiveness.

Figure 13. Porter 5 forces analysis

2.6.1 SWOT Analysis

Strength – S	Weakness – W
[S1]: 2-sided marketplace focus. GoWander concentrates on offering an open platform to anyone who is willing to offer a service. This has the potential to attract a massive group of users. [S2] GoWander differentiates itself from competitors by offering customised experiences through direct engagement between user and service providers, showcasing flexibility and customisation. [S3] Reduced prices: The service fees that are lower than those of competitors may appeal to a larger user base, including both service providers and consumers. [S4] Scalability: The open market paradigm enables swift expansion into new geographies and user categories.	[W1] Brand awareness: It would be difficult to compete with well-known brands such as TripAdvisor, TaskRabbit, Airbnb and similar platform because they have gained extensive userbase, awareness and trust. [W2] Acquiring a substantial number of users in the early phase of a start-up is challenging because the platform need to expand at the same time. [W3] Technical infrastructure: The process of creating and maintaining a reliable and easy-to-use system requires significant investment in technology and human resources capable of doing so.
Opportunities – O	Threats – T
[O1] Personalization of Services: Focus on highly tailored services unavailable on larger platforms, targeting a niche group. [O2] Global Expansion: Potential to expand into regions with less saturation of known companies, capturing unexplored markets. [O3] Collaborations: Partnering with travel companies, airlines, or local governments could generate new customer bases and increase trust. [O4] Local Expertise: Leveraging local expertise to give unique experiences that established platforms might not offer.	[T1] Competition: The presence of established players makes it tough to win market share. [T2] Regulation & Compliance: Navigating the differing requirements for online marketplaces across different locations can be complex and costly. [T3] Trust and Safety: Ensuring user safety and resolving disputes is vital in the C2C sector, especially in the tourism sector.

Figure 14. SWOT analysis

2.6.2 Macroenvironment Analysis

As a business, GoWander aspires to operate internationally in a broadly defined external environment. Many elements of this environment need to be thoroughly examined, understood and interpreted early in the business planning stage.

These environmental aspects are generally evaluated together in the early phases of strategic thinking, utilising a PEST (Political, Economic, Social and Technological) analysis method where legal factors are typically included with political and ecological ones with social ones. (Ward and Peppard, 2011)

These are essential because of their evolving speed and effect on an increasingly ‘global’ economic sector. Careful monitoring of these elements may lead to significant business opportunities or finding possible threats in time to take measures to prevent the effects. (Ward and Peppard, 2011)

The detailed PESTLE analysis has been placed in the Appendix. Please click [here](#) to view it.

The key finding from the analysis, opportunities, and business objectives:

Key finding	Opportunities
<ul style="list-style-type: none"> [KF1] Different countries have distinct policies impacting e-commerce and tourism. Compliance with these laws is necessary for operation. [KF2] Political instability can dramatically damage tourism-related activities and the willingness of users to seek services in certain places. [KF3] Economic changes can influence consumer spending power on travel and services. [KF4] Taxes in the digital economy [KF5] The popularity of various travel trends, such as adventure tourism, eco-tourism, or cultural tourism, affects the types of services in demand. [KF6] Big tech companies are held accountable for their worldwide influence and impact. (Loe, 2023) <ul style="list-style-type: none"> o [KF6a] There is growing concern that the domestic units of tech companies are undermining fair competition. (Loe, 2023) o Indonesian officials say that small businesses need protection from big tech companies, and banning e-commerce on social media will support offline businesses. (Loe, 2023) 	<ul style="list-style-type: none"> [OP1] GoWander can foster partnerships with different government bodies, such as local councils and tourism bodies, to operate in different countries. This would allow local businesses, as well as freelancers, to promote their services on the platform. [OP2] The platform can also allow residents and users who know a specific area to pre-plan. [OP3] Different demands mean a chance to operate in a ‘niche’ market share by allowing the residents to offer tailored services matching the users’ needs. [OP4] Operating in some countries might be cheaper than others. The platform can maintain its presence worldwide while keeping its physical offices and infrastructures in a country with a low cost of living. [OP5] Unlike traditional companies, whose profits are taxed at value creation, digital technology companies conduct most transactions electronically. This is an advantage for GoWander due to the virtual nature of its business, as companies are taxed through permanent establishment rules primarily based on physical presence. So, while GoWander will operate virtually all over the globe, its profits will be taxed only in the state with a physical establishment. (Moskowitz, 2023) [OP6] Users can outsource short-term jobs to other users, creating employment and promoting freelance labour.

Figure 15. KF & Opportunities

Objectives derived from KF and opportunities:

- [BO1] Create an extensive framework for ensuring conformity to regional regulations and establish strategic alliances with local organisations to guarantee safe and compliant operations on a global scale within the next 5 years.
- [BO2] Create responsive economic strategies that enable quick adaptations to market changes while minimising expenses through streamlined worldwide operations.

- [BO3] Take advantage of the virtual aspect of the business to maximise tax efficiency and simplify worldwide operations, while establishing a physical presence in tax-friendly jurisdictions by the next 2 years.
- [BO4] Gain 5 % market dominance in specialised sectors by empowering local individuals to provide customised services that cater to a wide range of traveller preferences in line with growing trends.
- [BO5] Promote regional economies by establishing a platform that enables small enterprises and independent professionals to succeed while cultivating equitable competition in online commerce.

2.6.3 Business Objective Model

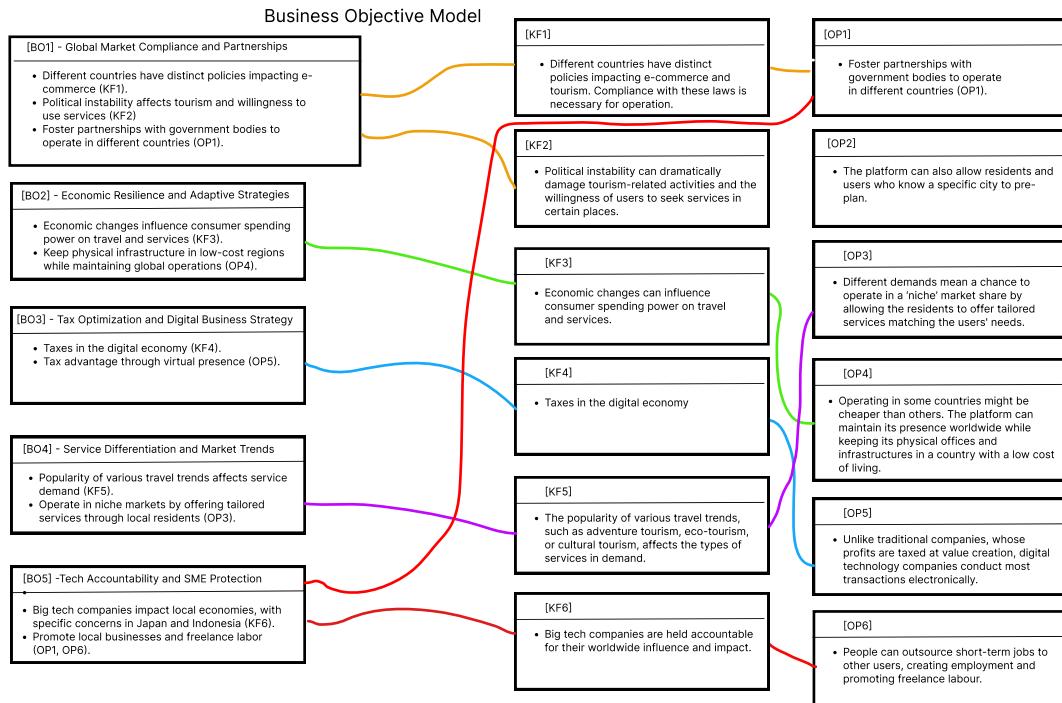


Figure 16. Business Objectives Model

2.6.4 Information Systems Application Portfolio Matrix

Ward and Peppard (2002) developed a model to understand the role of information technology in the organisation, allowing managers to understand the significance of technology investment. (Chaffey et al., 2019)

Most of the existing systems have built-in features for Framer website builders. The matrix shows what systems are implemented in our current platform and what systems we would like to integrate in the future.

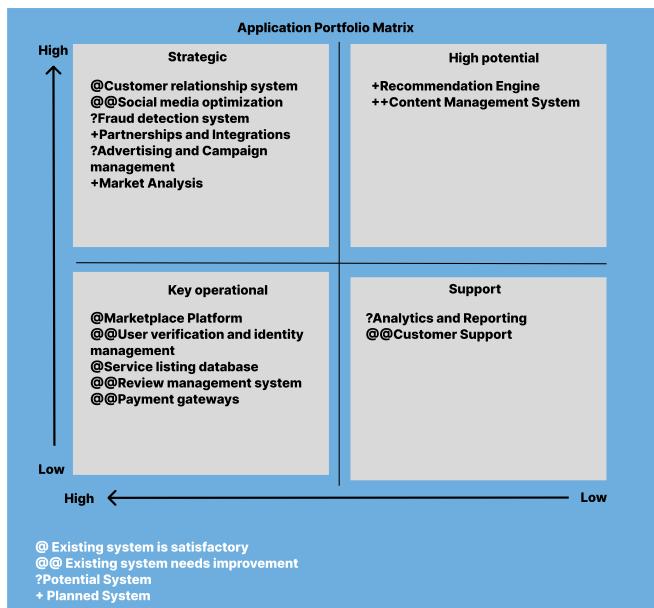


Figure 17. Application Portfolio Matrix

2.7 Value Chain Analysis

Value chain analysis is essentially a form of high-level industry and business process/activity analysis describing an industry as a network of critical components and their interrelationships. (Ward and Peppard, 2011)

GoWander value chain model differs from the traditional value chain, which is based essentially on a manufacturing-retail view of the industry and works well for ‘physical goods’. (Ward and Peppard, 2011) Since our business does not operate under a manufacturing–retail dynamic, we can refer to it as a ‘Value Network’. Value networks are businesses that provide mediation between buyers and sellers, i.e. by providing platforms, and they can generate revenue from either or both buyers and sellers.

GoWander primary activities are:

- Infrastructure development and operations
- Service provision (Platform, insurance, payment gateways, booking management system, customer support)
- Incentives to both buyers and sellers

A Value Network map visualises the interactions between different stakeholders in a system. In a C2C marketplace like GoWander, the primary stakeholders are the service providers, the service consumers (users booking the services), and the platform itself (GoWander). The map will illustrate the value exchanges between these entities.

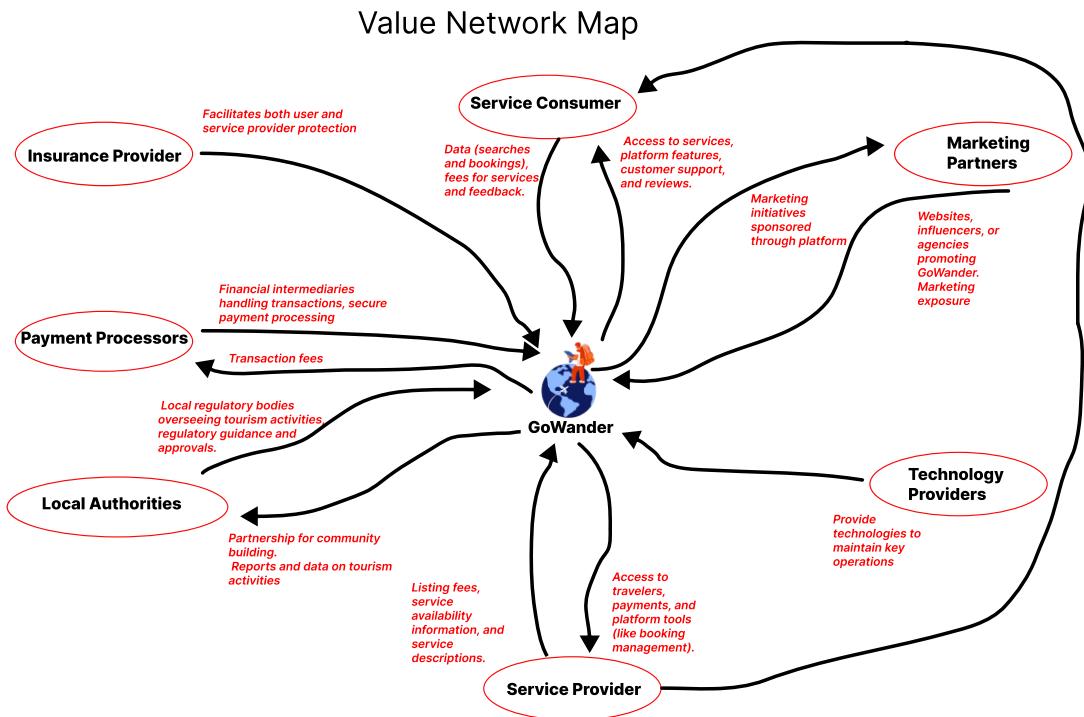


Figure 18. Value Network Map

2.8 VMOST Analysis and SMART Objectives

A good starting place for any company is to conduct a VMOST analysis, a simple model that can highlight essential parts of the business and help determine strategy.

Many businesses have a top-level mission statement that is used to scope the company's vision and highlight the success criteria for the business.(Chaffey et al., 2019)

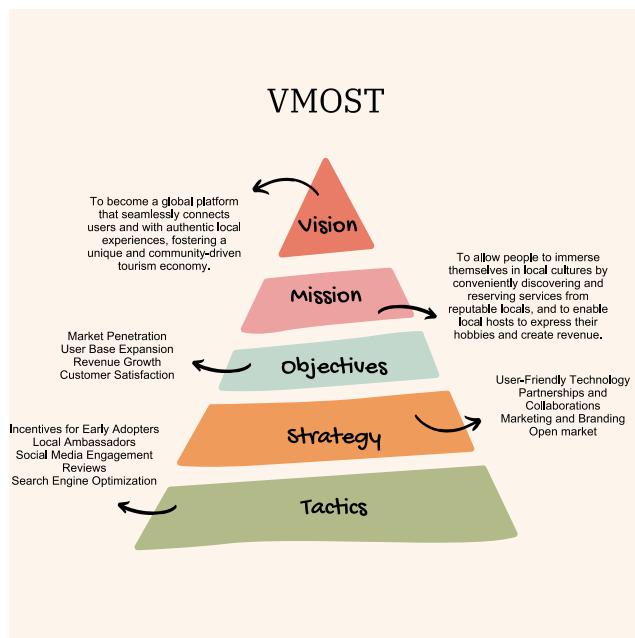


Figure 19. VMOST diagram

In the pyramid, the Vision and Mission of GoWander are self-explanatory, and there is no need to analyse them in depth. The objectives, strategies and tactics stated in the VMOST diagram (Figure 6) are some goals GoWander aims to achieve within its business to be competitive. Researchers define a goal as the desired end result of an action that is expected to be achieved at some specified time in the future. (Ogbeivi, 2017) Typically, writing objectives as SMART statements is the gold standard for goal setting because it gives a clear direction for action planning and implementation (CDC, 2008). The SMART model was initially outlined by George T. Doran in 1981, the five essential criteria that the statement of every meaningful and effective objective should fulfil (Doran, 1981).

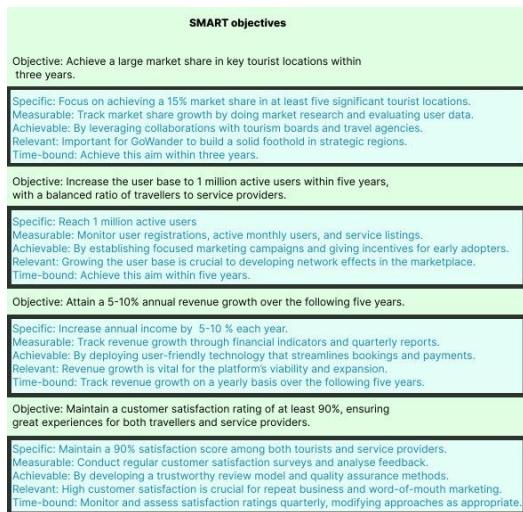


Figure 20. SMART objectives framework

2.9 Business and revenue model

The Internet has expanded the conventional marketplace by creating more platforms where economic actors can exchange information, communicate, distribute various products and services, and conduct formal business transactions. (Zhang et al., 2012)

To be profitable and competitive, GoWander needs to work with a specific commercial framework that goes over the traditional outlook of doing business. C2C is the leading commercial structure in an open market.

Open-Market Paradigm

An “open market” is defined as a marketplace where many people (individuals and businesses) can sell their products/services for a minor cost (Jung, 2006).

In an open market setting, customers’ needs become more noticeable and accessible, which can be quickly addressed. GoWander intends to leverage this opportunity and operate as an intermediary platform to list supply and demand.

After deciding on the commercial structure, one essential point to consider as a business is how to generate revenue. As the platform acts as an intermediary between 2 agents, the business aims to change the service fee for the user and service provider. This fee is charged to the user when they book a service from a service provider and charged to the service provider when they provide a service to a specific user request. This strategy encompasses the essence of a 2-sided marketplace where both agents can set their price for a designated service.

Revenue Streams:

- Transaction Fees: A fixed percentage or a variable fee from each booking made through the platform.
- Premium Listings: Charging both service providers for premium positioning on the site, increasing their visibility to potential customers and user service requests for major visibility.
- Travel Insurance: Travel insurance is offered in partnership with insurance providers, earning a commission for each policy sold.

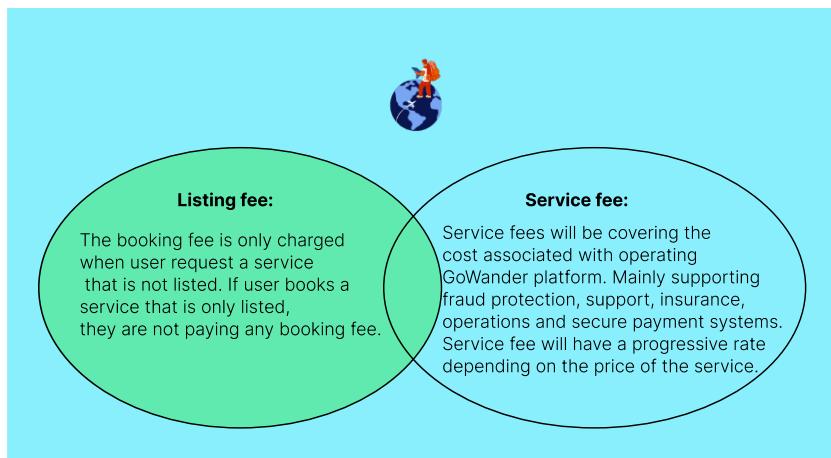


Figure 21. Revenue Model

See below the figure that summarises the transaction between buyer and seller.

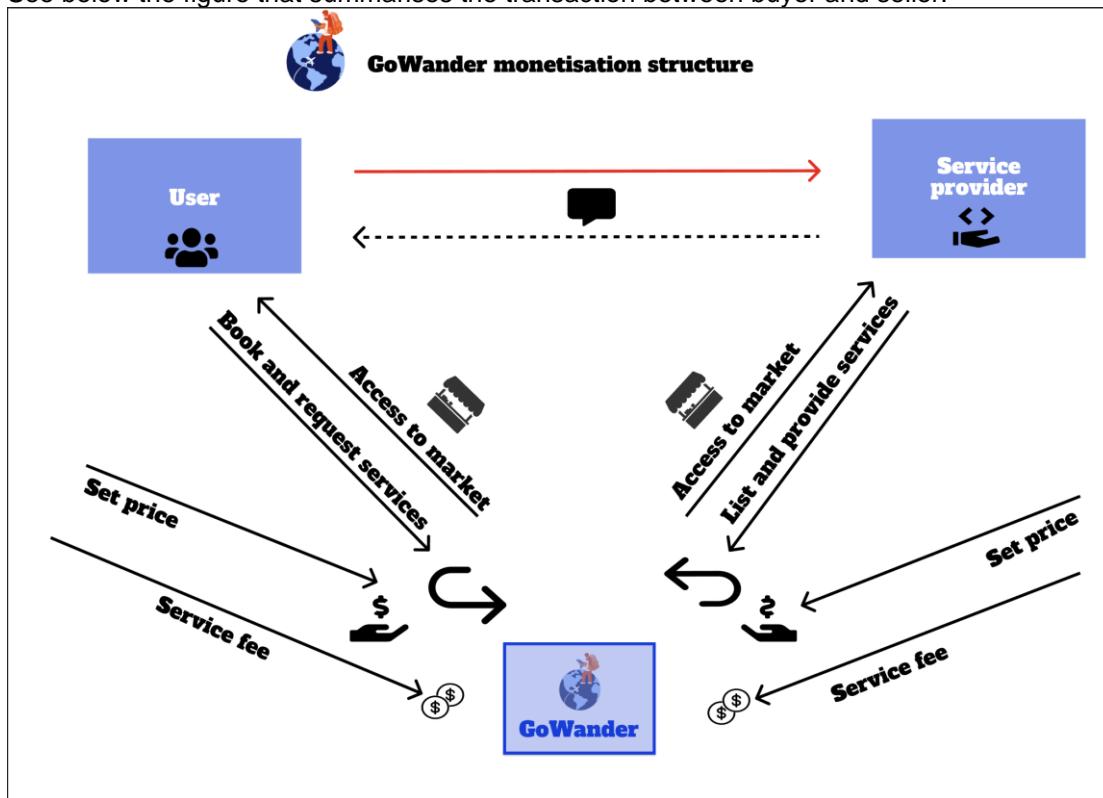


Figure 22. GoWander monetisation model

Request Service – Provide Service

Users have the option to use the platform for 2 specific services using two different methods:

Traditional method: The process can be described as follows: (1) A user submits a request for a service that must be delivered on a particular date, time, and budget; (2) A service provider or user proposes a price within the specified budget for that particular service request, and (3) The customer selects a user or provider to fulfil the service.

The listings model: Enables service providers to bundle a pre-packaged service and present it at a set price. When customers travel through the listings on GoWander, they may come across one of these service packages and buy it directly from the service provider without any customisation.

Advantage for Service provider on using GoWander platform	Advantages for users of GoWander
<ul style="list-style-type: none"> Minimal entrance barrier - When choosing where to sell their services, merchants or service providers have two alternatives: creating their e-commerce store or joining an established platform. As e-commerce websites may cost tens of thousands of dollars, joining an online marketplace is more affordable. A significant number of possible customers - Coming to a marketplace, service providers don't need to spend time hunting for buyers as they would be already looking for services in the platform. No analytic hassle - Service providers don't need to track their sales. C2C marketplaces frequently contain technology that automates standard processes for hassle-free operations. 	<ul style="list-style-type: none"> Ability to choose from many sellers - A 2-sided marketplace is where one side draws the other. While service providers have access to a huge target audience, purchasers have a vast range of services. Thanks to this choice, every user of a C2C marketplace can select the finest solutions in terms of quality and price. Quality control - GoWander would ensure a compliant listing of platform services. For this aim, GoWander will create reviews and rating features that would allow purchasers to be sure about the quality of the services by verifying every user. Convenience and speed of purchasing - One of the features of C2C marketplaces is a short checkout process that encourages users to make transactions immediately. Buyers or consumers can pay immediately on the website to make the purchasing process even faster and secure. Security of purchasing - A secure payment method that accepts and retains a customer's payment until the goods or service is appropriately provided. After that, the system transfers money to the service provider.

Figure 23. Users benefit

3. Legal, social and ethical issues

Throughout all aspects of the project, including research, analysis, design, and execution, the project strictly adhered to the legal, ethical, social and professional criteria established in the British Computing Society Code of Conduct (BCOC), GDPR, Data Protection Act (2018), and Consumer Rights Act (2015).

In the United Kingdom, establishing an e-commerce site needs a comprehensive compliance protocol that incorporates customer-facing policies on digital content and advertising, backstage technology, and cybersecurity measures. Protecting customers' personal data following the Data Protection Act and the UK GDPR is a top priority, as is preventing marketing practices that violate consumer protection laws. (Stephen, 2023)

The landscape is further complicated by international compliance and data transfer regulations as the GoWander expands beyond borders.

GDPR (General Data Protection Regulation)

May 2018 marked the implementation of the General Data Protection Regulation (GDPR), a rigorous privacy law. It primarily provides individuals with increased control over their data. This regulation must be followed by any websites that handle the personal data of UK or EU citizens, irrespective of the company's location. Personal data must be processed in a lawful, transparent, and specific manner under the UK GDPR. The data should be deleted once the intended purpose has been achieved.

Data Protection Act (2018)

The GDPR was implemented in the United Kingdom through the Data Protection Act 2018. It supplements and tailors the GDPR within the UK context, addressing how data is handled, stored, and processed. The Act applies to all UK-based enterprises and includes a variety of responsibilities, including the appointment of a data protection officer, the maintenance of a record of processing activities, and the implementation of appropriate measures to protect data from incidental loss and unauthorised access.

Conduct

The BCS's Code of Conduct (BCOC) was employed to ensure professionalism throughout the entire process. The project follows the second principle of the BCOC, which specifies not to

conduct labour or deliver a service that is outside our professional ability. Most of the study, analysis and design were generated through public, academic publications, academic literature, and information gathered through the modules learned in the academic years.

Data Confidentiality

GoWander's website will collect, manage, and process all users' data. This data includes a general and special category that needs more protection because it is sensitive. Framer website builder has been used to provide users control over their personal data. Framer is certified under the EU-U.S. and Swiss-U.S. Data Privacy Framework as well as the UK Extension to the EU-U.S. Data Privacy Framework. (Framer, 2023) Framer uses HTTPS and SSL protocols to protect and encrypt websites for user safety and security when browsing the site.

Informed Consent

No personal details have been collected throughout the questionnaire as it was anonymous. The Computer Misuse Act (1990) does not apply to the construction of the website because there is no "ethical hacking" or "unauthorised access to the material."

Intellectual Property and Licensing

The UK's Copyright, Designs and Patents Act (1988) governs intellectual property, which relates to the mind and can only exist as an artefact (Copyright, Designs and Patents Act, 1988). Most icons and photos used in the website builder during the GoWander's implementation were acquired from sites according to the Creative Commons licensing legislation.

Registration and Legal Requirements

Every business is required to be registered. If operating as a Limited Liability Partnership, GoWander would register with Companies House and adhere to the Business Names and Trading Disclosures Regulations 2015. This involves disclosing specific business details of GoWander website and company correspondence.

Taxation and Corporation Tax

GoWander will presumably be subject to Corporation Tax, which requires registration with Her Majesty's Revenue and Customs (HMRC). GoWander would need to report profits and pay tax on them accordingly. It is also essential to understand VAT obligations, including registering for VAT if GoWander's taxable turnover exceeds the threshold set by the government.

Intellectual Property Considerations

Protecting GoWander intellectual property (IP) is pivotal. GoWander ensures that the company name, logos, and any unique products are protected by trademarks.

Implementation of 3D Secure is obligatory in the UK

3D secure is an additional measure to enhance the level of security of the payment process created by Visa and MasterCard. It lets users use a 3D secure password to confirm online purchases. GoWander incorporated this measure for every payment method as it is obligatory.

4. Design

This chapter focuses on the system design proposal for GoWander, which was initially highlighted in the PSPD requirement section in the PSDP report. Initially, all the requirements proposed for the prototype in the PSPD were high-level.

After the supervisor's feedback, the initial requirements proposed in the PSPD were re-elaborated, and the essential functionalities for the system's operation were focused on. These requirements are categorised as functional and non-functional to offer a comprehensive perspective on the user and the system.

To gather the requirements for the platform's foundation, an initial anonymous survey was conducted to analyse the user sentiment about the existing platform operating in the travel industry. Besides that, extensive visual / document analysis and testing of current travel marketplaces like Airbnb experience, Viator, etc., were conducted to understand how this platform operates and engages with the user. Documentation on the existing system may provide formally defined information requirements for the current system. (Bennett et al., 2010)

In this stage 4 requirement, eliciting techniques were used:

- Anonymous questionnaire
(Please check here for the questionnaire in the appendix, [here](#))
- Observation can be used to verify information from other sources or to look for exceptions to the standard procedure. (Bennett et al., 2010)
- Document analysis includes eliciting requirements by analysing existing documentation and identifying relevant information. (Isidora Djekic, 2022)
- Use cases are descriptions of the functionality of the system from the users' perspective. (Bennett et al., 2010)

Based on these findings, a set of requirements were listed. Check [here](#) to see the whole list of requirements in the appendix II section.

The low-medium fidelity prototype was built with a no-code website builder called Framer. I incorporated Jakob Nielsen's 10 general UI and UX design principles, including colour balance, aesthetics, consistency, and accessibility. (Jakob Nielsen, 1994)

4.1 System Design

Use case diagram

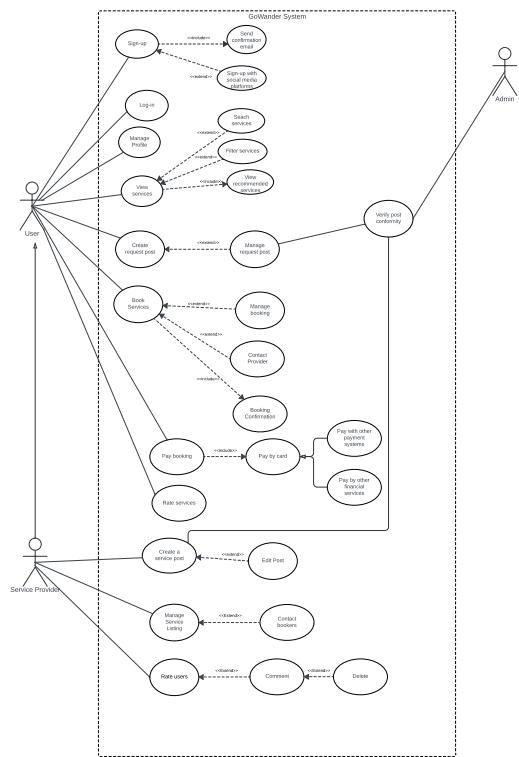


Figure 24. Use case diagram

The use case graphic illustrates the essential functionalities of GoWander, serving as implementation requirements. The main features of the use case have been derived from the information gathered during the requirement-gathering phase. In the use case model, the primary actor is the user, whereas the service provider is a user who will employ their dedicated interface. The service providers' obligations are limited to generating listings for their services and efficiently overseeing them. Before utilising the use cases, the user must finish the platform's registration procedure.

Class diagram

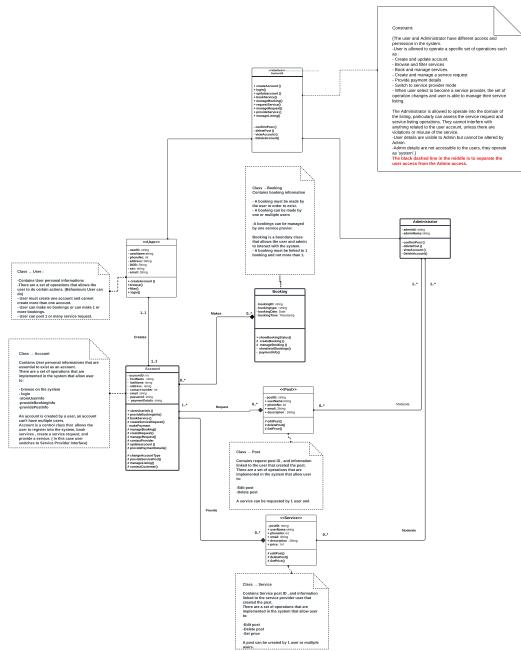


Figure 25. Class diagram

The following class diagram displays all the classes required for GoWander's creation. The class diagram displays the classes that will interact with one another to provide the basic capabilities of the platform.

After the requirement elicitation and use case diagrams, each class's role in the system and the responsibilities of each class in connection to the system have been identified. A BCE pattern was implemented to make sure that the duties of the classes are also reflected in the linkages and interactions between the different kinds of classes to ensure the robustness of the design. Since the prototype was constructed with a no-code tool, there was no necessity to respect architectural patterns during the design to highlight the different layers of the platform.

In a code-based environment, GoWonder would have followed an MVC pattern. The Model-View-Controller (MVC) is an architectural pattern that splits an application into three basic logical components: the model, the view, and the controller. Each of these components are built to handle distinct development aspects of an application. MVC is one of the most often used industry-standard web development frameworks to create scalable and flexible projects. (Kevin Kononenko, 2016)

Activity diagram

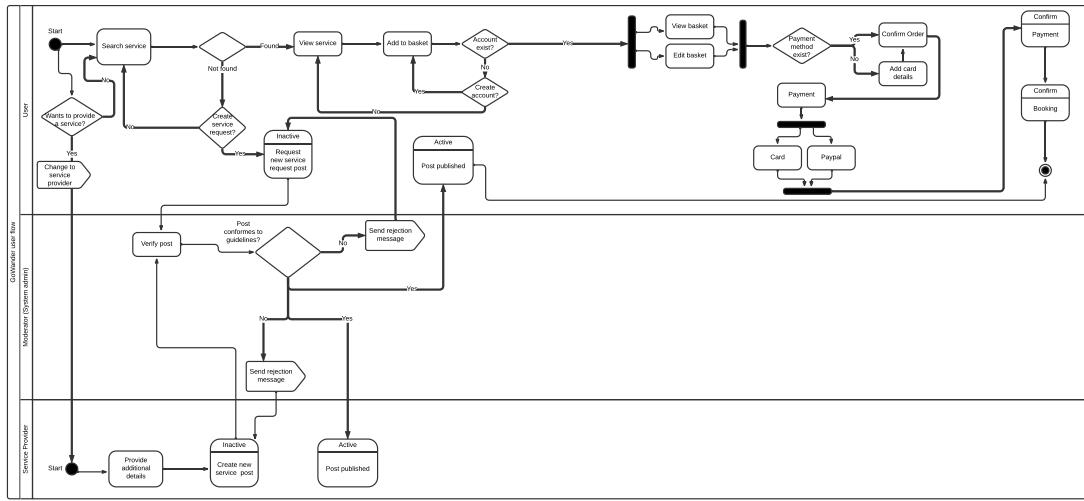


Figure 26. Activity diagram

The activity diagram reassumes in several steps how the whole application would work. We can see a real use case of how the MVC pattern could be implemented during the activity glow.

- The **user makes a request** during the activity flow, let's say, request a service. To request this, the user must create a post with a request label in the system. The post is not active and visible in the system.
- The **controller** receives this request and gives a specific set of orders related to that flow. Let's assume this request has some logic associated with it.

There are instructions for the moderator to review the post, check if the content is appropriate based on GoWander's guidelines, and update the status of the post by changing it to active, making it visible to everyone on the platform.

- The **model** carries out the logic, pulls from a database and sends back a consistent response based on the system admin's instructions.
- The controller then passes this data to the **view** to update the user interface.

Sequence Diagram

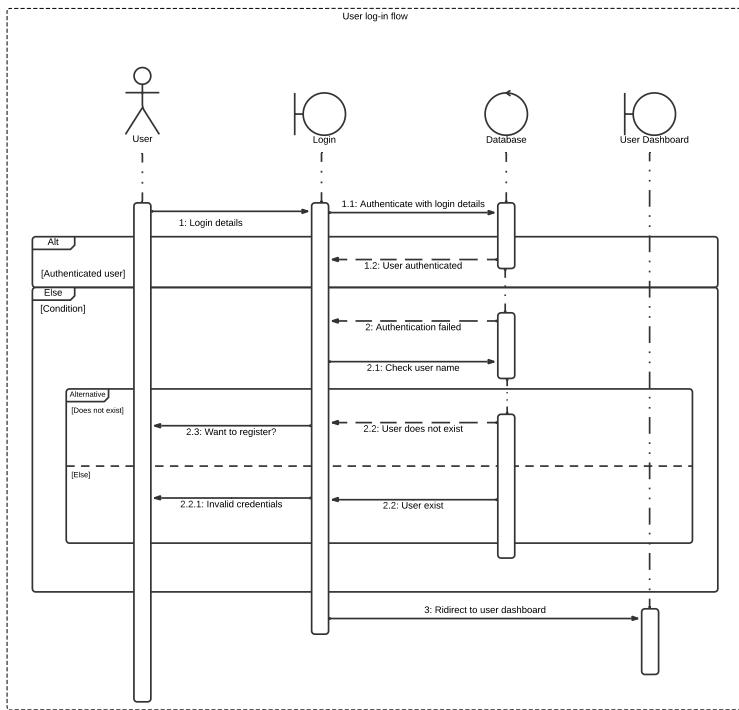


Figure 27. Sequence diagram

UML Sequence Diagrams are interaction diagrams that show an event across all objects engaged in a single interaction. It captures the responses of all items involved in a single case.(Bennett et al., 2010)

The sequence diagram in the above diagram describes the series of events that occur when a tries to log in. The interface delivers the request to control, the control asks for user name and password. Following the user's entry of their credentials, these are checked by the control. If the credentials are correct, the control will allow user to advance to the dashboard.

If the authentication fails, the control will prompt the user to register, if the user accepts then after the registration the user is directed to the user dashboard. Otherwise user receive an error message.

5. Methodology

In this chapter, we will explore the numerous techniques considered during the project development process. We will describe the benefits or advantages of each methodology, along with a comparison and why a particular approach was picked for the project.

Waterfall and Agile were the two approaches chosen to construct and develop the concept underlying GoWander.

5.1 Agile Model

The Agile process, commonly referred to as incremental development, involves producing an initial implementation, obtaining input or feedback from users and other stakeholders, and continuously refining the software via several iterations until the desired end- product is attained. (Jeff Gothelf and Josh Seiden, 2021)

Adopting an agile strategy enables the identification of early increments and developing following increments based on stakeholder feedback.

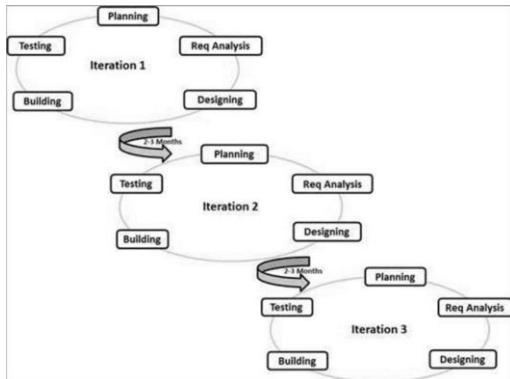


Figure 28. Agile development diagram

5.1.1 Advantages of Agile Model

The key advantage of this development process is that it lowers the quantity of documentation that must be updated if stakeholders request a change in requirements. In addition, the agile paradigm permits comments from stakeholders to be included into the programme during the following application iteration. Due to its flexibility and capacity to react to changing requirements, the agile methodology has earned substantial appeal in the software development industry. The figure below depicts the incremental developments in software development. (Jeff Gothelf and Josh Seiden, 2021)

5.2 Waterfall Model

The waterfall model is considered a linear, sequential approach and is a typical methodology that relies on each step before moving to the next one. This strategy provides a clear grasp of each project stage's anticipated outcome and deliverables.

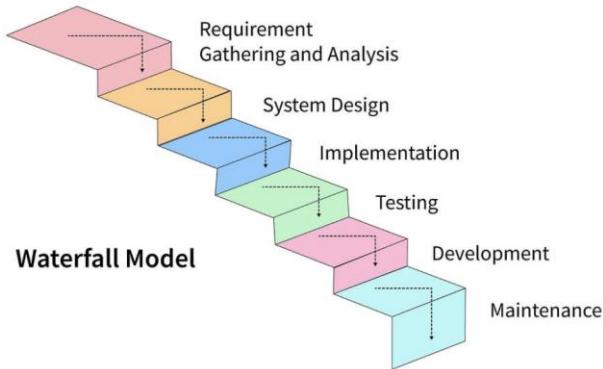


Figure 29. Waterfall Model

5.2.1 Advantages of Waterfall Model

One advantage of using the waterfall methodology is its ability to produce a well-defined project timeline with clearly set start and finish dates as well as critical milestones. This strategy is suited for projects with an agreed-upon scope and a grasp of the desired outcome.

5.3 Comparison of Methodologies

Table 3 displays a comparison table of the Agile and Waterfall approaches, showing the pros and downsides of each criterion. Ultimately, the choice of methodology depends on the specific requirements and limitations of the project.

Waterfall	Agile (Scrum)
Feasibility evaluation takes a long phase and is done in advance to avoid reworking in the next project phases.	Feasibility test takes a shorter while considerably. Clients are engaged in the early project phase to get the buy-in and refine the needs in the long run.
Project planning is done at the beginning of the project and is not open to any changes later on.	The plan is not given the foremost priority and is done during sprint planning. Modifications are welcome except during an active sprint.
Project progress gets monitored according to the project plan.	The development gets tallied in each sprint.
Only the project managers communicate and carry out progress review meetings weekly/monthly.	Communication is frequent, face-to-face, and clients also participate throughout the project.
Roles are not interchangeable once distributed among project team members.	You can switch roles quickly, and the team can work in cycles.
Documentation gets a lot of emphasis and that is pretty comprehensive.	There's a need to file requirements, build designs, and write test plans to promote working software delivery.

Figure 30. Comparison table

5.3.1 Chosen Methodology

The waterfall method was chosen to help the building of GoWander platform since it gave a distinct and controlled approach to the project. Each project phase could be completed before proceeding on to the next, which was necessary for its effective completion using the waterfall approach. The project needs a strategic analysis first to comprehend the competitive landscape it will desire to place in. After those analysis the requirements were gathered to develop and execute the prototype. In addition, the waterfall methodology was picked due to its ability to generate a timeline for the project with clearly defined start and finish dates as well as significant milestones. A Kanban chart was utilised to visualise these critical dates and ensure the project remained on schedule. The agile technique was not chosen because it was an independent project that did not require the presence of an agile expert.

Although feedback was collected after each phase of the project, the waterfall approach was utilised since it was deemed the most appropriate and effective approach for this particular project.

6. Tools and implementation

This chapter focuses on the tools used to implement the prototype of the platform. Since a no-code website designer application was used to create the responsive prototype, extensive research was conducted to determine the most appropriate application services and operating systems that aligned with the project's objectives and requirements.

6.1.1 Lucid App

Lucidchart, a web-based diagramming application, was utilised to build the application's design. It gave a visual depiction of the prototype's main functionalities before developing the prototype.

6.1.2 Figma

Figma is a design that was mainly utilised to create all the visual representation of the tools used during the strategic analysis.

6.1.3 Framer

Framer is a no-code web design platform that was used to construct the prototype for the platform. The platform enables users to develop in a Figma or Sketch-like environment and put the design into code. Some of the prototype's design pieces were created in Figma and then incorporated into Framer.

6.1.4 Microsoft Word

Microsoft Word was used to construct the entire report.

6.1.5 Zotero

Zotero is an open-source reference management software that handles bibliographic data and related research resources. It has been used throughout the completion of the report, and all the references and citations have been made utilising this tool. It also contains all the research documents used to create this report. Zotero has a plugin for Microsoft word that allows automatic referencing.

6.1.6 Google Form

Google Forms was used during the PSPD to run and collect data for the anonymous questionnaire.

6.1.7 Google Scholar, ResearchGate, Westminster's online library

These were the main tools for finding papers and books about the project topic and relevant academic research for the implementation of the prototype.

6.1.8 Trello

Trello was utilised for visual work management. During the beginning of the project, a Kanban board was set up with deadlines and activities to keep track of all the tasks required for the completion of the project.

6.1.2 Summary and Justification of Tool Methods

Website builders are ideal for beginners with limited funds and technical knowledge. They provide a variety of templates and tools that make it simple to build a website quickly, but at the expense of limited design options and scalability, as well as limited functionalities that do not allow a full implementation of all the requirements and functionalities proposed in the requirements and system design.



Figure 31.Framer homepage

Framer offers AI-powered design features and a user-friendly UI that caters to designers of all levels, from beginners to experts. Its comprehensive component library makes it suitable for dynamic and interactive online experiences. Unfortunately, Framer lacks native e-commerce functionality, which would have been essential for the entire platform implementation as GoWander aims to act as a travel marketplace. This hugely limited scope, as the whole of the prototype, shows only the basic functionalities elicited in the requirements rather than complex functionalities such as a booking management system.

Here, we will review the positives and downsides of website builders to enable those who need to build a website to choose the best for their project. One of the key advantages of using website builders to design a website is that it is the cheapest alternative. There are free website builders; however, the commercial ones offer the best outcomes. The cost of commercial websites is a small part of what it will cost to employ a web designer, but most of them are free for academic purposes until now. Additionally, according to Steele (2014), the student using the website builder is the foremost accountable of the project. There is excellent control over layout, design components, functionality, and content. This means changing the website will greatly speed up, and there is no need to ask a designer to develop the platform's design and provide back the drawing. In some circumstances, a website builder can be a terrific alternative, although several disadvantages may rule it out as the best option for beginner with limited resources. (Aladdin et al., 2018)

The major disadvantage is that the website builders restrict the system scope and capabilities. Since it only allows templates, additional customisation is not permitted. While it is not an issue for developing smaller websites, it may not be an appropriate strategy for more involved ones as an academic / e-commerce. Moreover, another critical problem with website builders is that users will never own the website. If anything goes wrong with the supplier, it will harm the firm quickly. (Aladdin et al., 2018)

Open source platform: WordPress

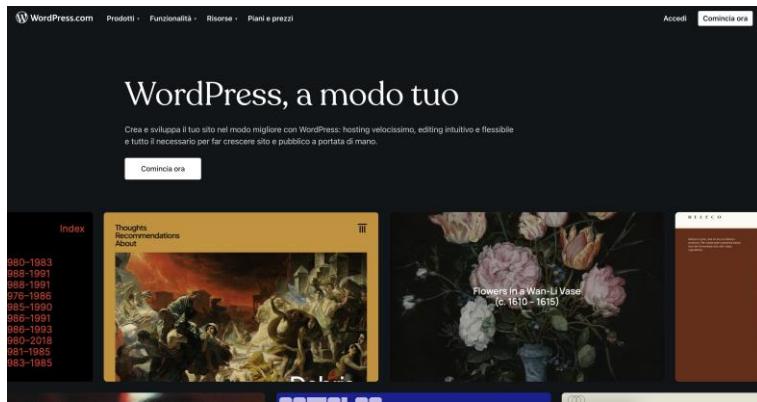


Figure 32. WordPress homepage

WordPress is a flexible open-source CMS that specialises in customisation and versatility. It is excellent for customers who need significant control over their website's look and functionality, supplemented by a vast choice of plugins and themes. WordPress is powerful in e-commerce through WooCommerce, making it a robust solution for online retailers. However, it requires separate hosting and domain providers, which might add to the complexity and extra cost for beginners.

Manual Coding: Web programming language

```

1 <html>
2   <head>
3     <title>aso</title>
4     <meta charset="utf-8">
5     <meta name="viewport" content="width=device-width, initial-scale=1.0, maximum-scale=1.0, user-scalable=no">
6     <link href="../layout/styles/layout.css" rel="stylesheet" type="text/css" media="all">
7
8   </head>
9   <body id="top">
10
11   <form method="post" action="/en/Respond" name="loginForm" id = "loginForm" onSubmit="return validateForm();">
12     <tr>
13       <td>
14         <if (request.getParameter("msj").equals("usname")) { %>
15           <p><font color="red"><b> Login Failed </b></font></p>
16           <p>Wrong username please try again! </p>
17         <: else if (request.getParameter("msj").equals("uspass")) { %>
18           <p><font color="red"><b> Login Failed </b></font></p>
19           <p>Wrong password please try again!</p>
20         <: %>
21       </td>
22     </tr>
23   </table>
24 </body>
25 </html>
26

```

Figure 33. Code snippet

Manual coding is the most customisable option, but it requires a substantial time investment and technical knowledge. It is suitable for large businesses or developers who require complete control over the functionality and design of the website.

The table below compares the tools that can be used to implement a website, the advantages and disadvantages between website builders, open source, and manual coding.

Method	Advantages	Disadvantages
Website Builders	<ul style="list-style-type: none"> - Easy and user-friendly, no technical knowledge required - Fast and simple to set up - Affordable and often free, cost is paid monthly or yearly - Includes hosting and domain registration - Security and maintenance managed by provider 	<ul style="list-style-type: none"> - Limited design and customisation options, such as templates - Limited control over the code - Limited flexibility and scalability
Open Source	<ul style="list-style-type: none"> - Free to use and modify - High level of control and flexibility over the code - Large community support and resources - Customisable design and functionality - Security and maintenance managed by community support - Cost is free 	<ul style="list-style-type: none"> - Requires coding knowledge and experience - Time-consuming and complex to set up - No technical support - Requires separate hosting and domain registration
Manual Coding	<ul style="list-style-type: none"> - Complete control over the code and design - High level of flexibility and scalability - Highly customisable functionality - Allows for efficient optimisation and performance - Security and maintenance self-managed - Cost is free or paid 	<ul style="list-style-type: none"> - Requires advanced coding knowledge and experience - Time-consuming and complex to set up - No technical support - Additional costs for hosting and domain registration

Figure 34. Tools comparison table

Framer was the most suitable option for GoWander, as a website builder is the most ideal alternative for constructing the Web application prototype, considering that GoWander is a tiny firm not completely developed yet. The company has no budget and is without technical experience and knowledge. Utilising a website builder allows the creator of the business to exhibit how the primary capabilities of the prototype would work, saving time and money on application development and management and making it a practical and efficient solution.

6.1.3 New Skills

Developed website construction skills utilising a website builder, which proved vital in constructing the web application design and layout from scratch, especially due to the absence of prior knowledge. Creating an application using a website builder involves attention to detail to match UX concepts and criteria.

6.2 Implementation

This chapter covers the implementation of the prototype model based on the design presented in Chapter 4, along with limitations encountered during this stage, which will be further discussed in the following sections. To create a medium fidelity prototype, a website builder was used to implement the necessary functionalities, as discussed in Section 6.1.

As discussed, the objective was to develop an interactive prototype by using Framer website builder.

Here are some findings collected from the different analyses for the implementation of the user and system requirements:

- The buyer can acquire things from numerous sellers.
- The same consumer could act as both a buyer and a seller.
- The online marketplace will allow customers to browse products using criteria such as best seller, most popular product, etc.
- The sellers can bid on the items on the items/services listed by the buyer and what they are looking for so that the buyer can obtain the best pricing and offers from sellers.
- The functionalities of social media connection include community or forum discussion, blogs, and other social media website link interfaces.
- The back-end interface contains administrative capabilities to manage buyer and seller accounts, payment settings, personal details, etc.

6.2.1 GoWander implementation

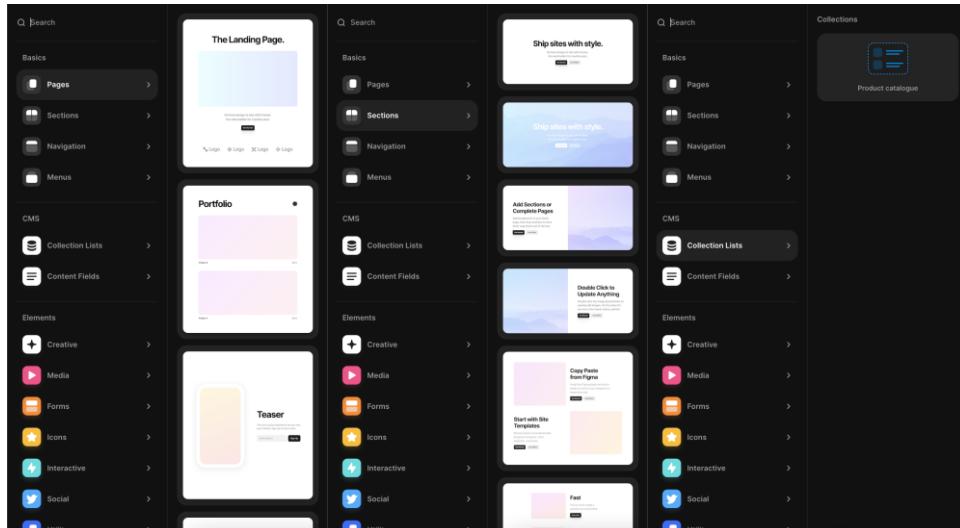


Figure 35. Framer Pages , 36. Framer Sections , 37. Framer Navigation

As indicated in section 4, the GoWander prototype was developed on Framer, a no-coding website builder. The application comprises numerous pages templates, as in Figure 34. Framer allows users to select from the templates accessible on its platform, and when a template is selected, it comes in a pre-designed format that may be changed. There are various pages to choose from, and after a specific template of a page is selected, Framer lets the user choose from a range of pre-created sections for the webpage (Figure 34). Framer also offers to choose from pre-designed navigation bars (Figure 35)and menus that may be entirely changed

later on.

One of the main issues that were faced during the prototype development was the location of the various element inside the canvas.

The image consists of three side-by-side screenshots of the Framer platform's interface:

- Figure 38: Framer Pages**: Shows a list of pages under the "Pages" tab. The "Home" page is selected, showing its structure. Other pages listed include "/Explore", "/Sign-up-User", "/Sign-up-SP", "/Login", "/privacy-policy", "/explore", "/sign-up-user", and "/sign-up-sp".
- Figure 39: Framer Layers**: Shows the "Layers" tab for the "Home" page. It displays a hierarchical tree of layers: Desktop > Navigation > Header Image, Desktop > Headline, Desktop > Recent Activity, Desktop > StartPlanning, and Desktop > Footer. Each layer has specific styling applied.
- Figure 40: Framer Assets**: Shows the "Assets" tab. The "Components" section lists "Project", "Framer", "Framer Modules", "FramerAuth", and "Wize". The "Styles" section lists various font styles (H1 to P16) with their corresponding font sizes and weights. The "Links" section lists two links, and the "Colors" section shows a color palette.

Figure 38. Framer pages, Figure 39. Framer Layers, Figure 40. Framer Assets

Figures 36, 37 and 38 illustrate what features the Framer platform gives when a page has been established. Whenever the produces a page, a set of element are automatically placed inside the layers section (Figure 38) , and every components of the layers, such as : Font, colour, CTA buttons, and whatever specific to that page are stored inside the assets.

6.2.2 GoWander Homepage

<https://gowander.framer.website/>

The homepage serves as the first point of contact for users visiting the website, and several key functionalities were implemented to enhance the user experience, as it will be shown in the figure below. A blank canvas in Framer was used to create this Desktop landing page. A horizontal navigation bar was implemented at the top of the website to allow users to easily access different sections of the website while scrolling, along with a search bar filter and the GoWander logo and name for brand recognition. The horizontal bar contains 4 principal sections:

- Explore – The user is redirected to the explore page to check what activities are available on the platform.
- Sign-up – User is requested to sign-up to the website. This is only for normal users who want to book services through the platform.
- Login - The user is requested to log in if already registered.
- Become a service provider – This is a designated page only for users who want to provide a service, and the sign-up flow is different.

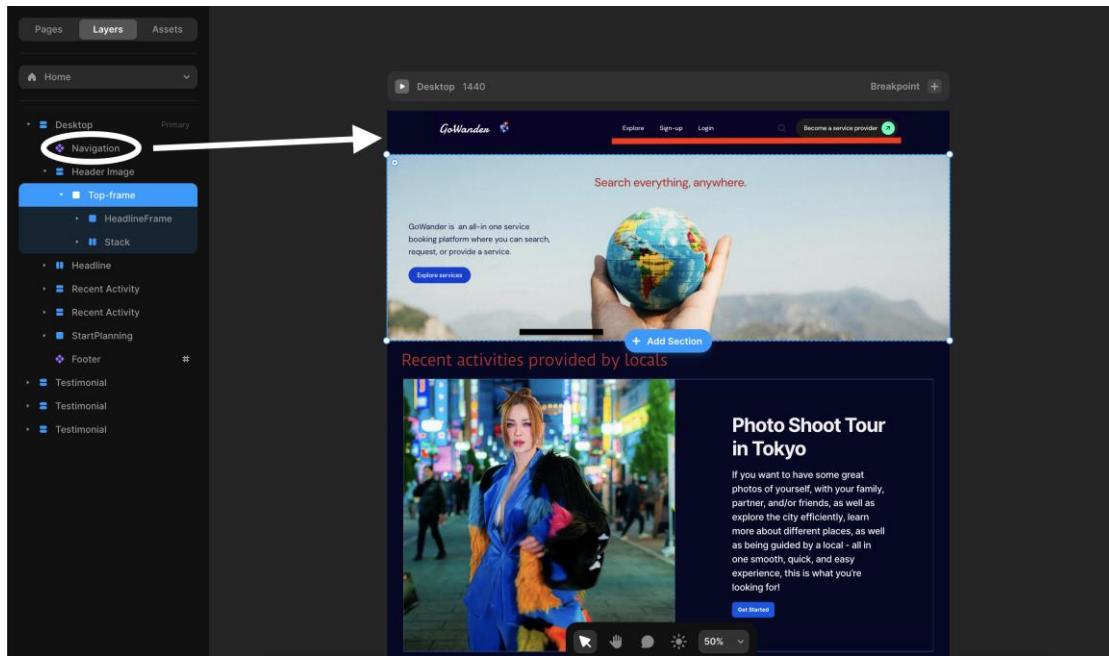


Figure 41. GoWander landing page

After the navigation bar, there is the header section suggesting the user to click on the CTA button to explore all the services available on the platform.

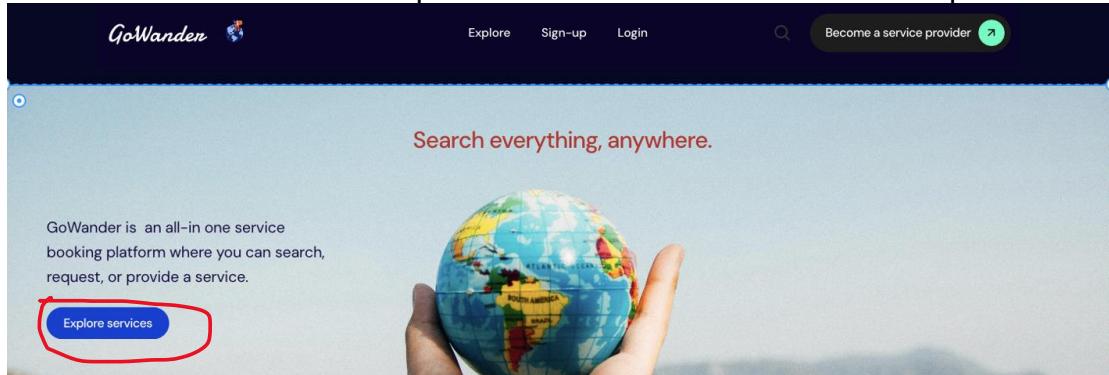


Figure 42. GoWander header

Recent Activities section:

After scrolling down, the user is displayed with a few services offered by local providers in the 'Recent Activities provided by locals' where they can see also visualize the description of the service, as well as the service providers details.

Several call-to-action buttons were implemented throughout the page, serving as both internal and external links to important pages and resources.

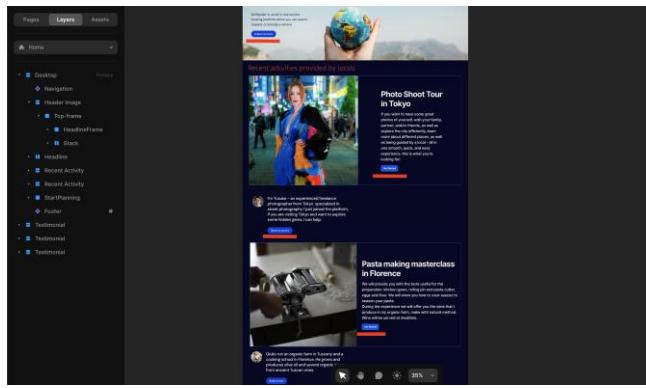


Figure 43. Recent activities section

Review section:

The user is provided with various reviews from prior users who booked the services. This seeks to induce the user a sense of confidence and tranquillity regarding the services, as in primis, they might not be willing to believe a post without any feedback from others.

After the reviews part, the user is encouraged to go to the explore page to check all the services accessible and to explore the platform.

At the end, there is the footer section with the contact details to reach out to customer service.

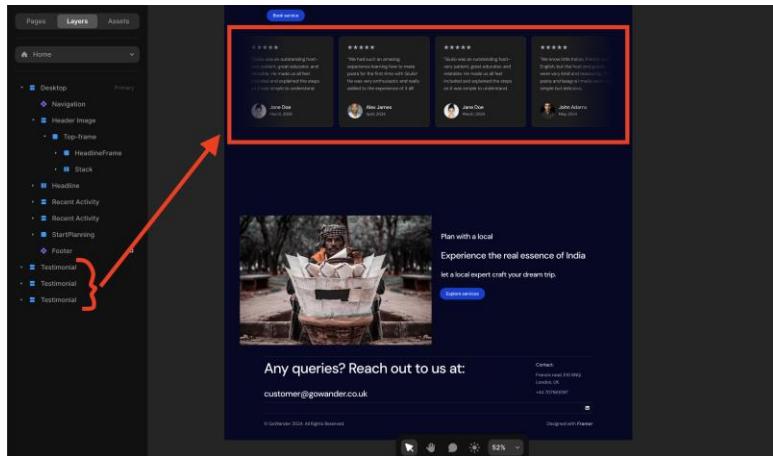


Figure 44. Review section

6.2.3 GoWander Explore page:

The explore page displays the users all the activities that are listed in the site and some details about these. At the top, there is the navigation bar.

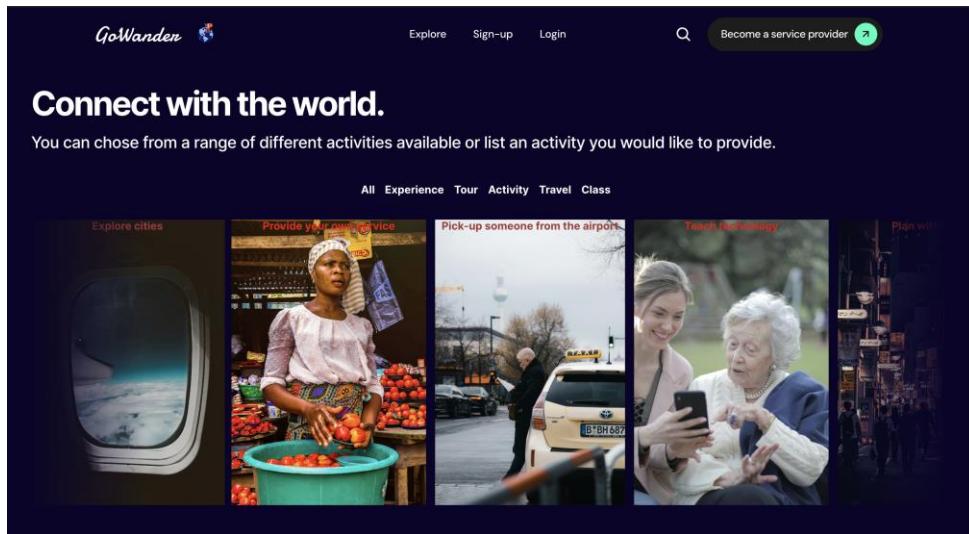


Figure 45. Explore Page

Before the header, there are categories relating to varied experiences. When the user clicks a specific category, all the services connected to that category are filtered and presented.

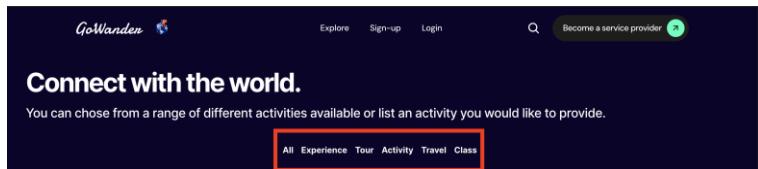


Figure 46. Categories exploring page

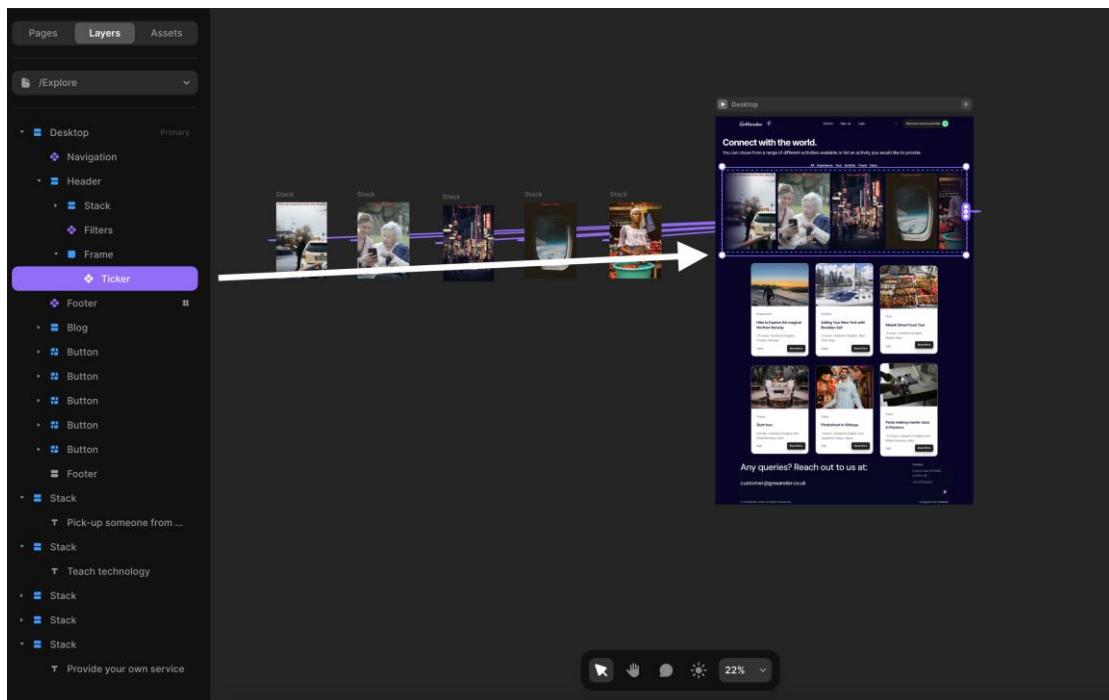


Figure 47. Ticker Explore Page

After that comes the header section that has a ticker. Ticker is a CSS-based carousel that infinitely scrolls from right to left without the need to drag it. Unfortunately, the ticker does not let you pick the component inside it; therefore, it's purely for aesthetic purposes.

The header there are some Categories for different experiences. When the user clicks a specific category, all the services connected to that category are filtered and presented.

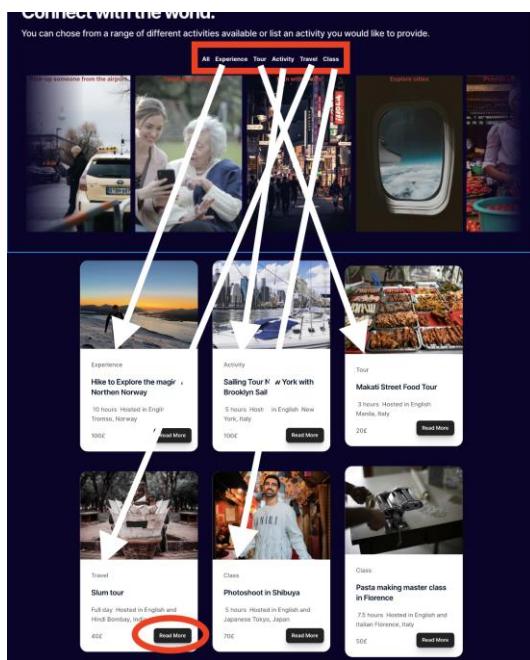


Figure 48. Category filters

After the header there is the collection list part of all the activities that are available into the platform so far, the user can click on the CTA button on each card and a page will arise revealing all the specific activity.

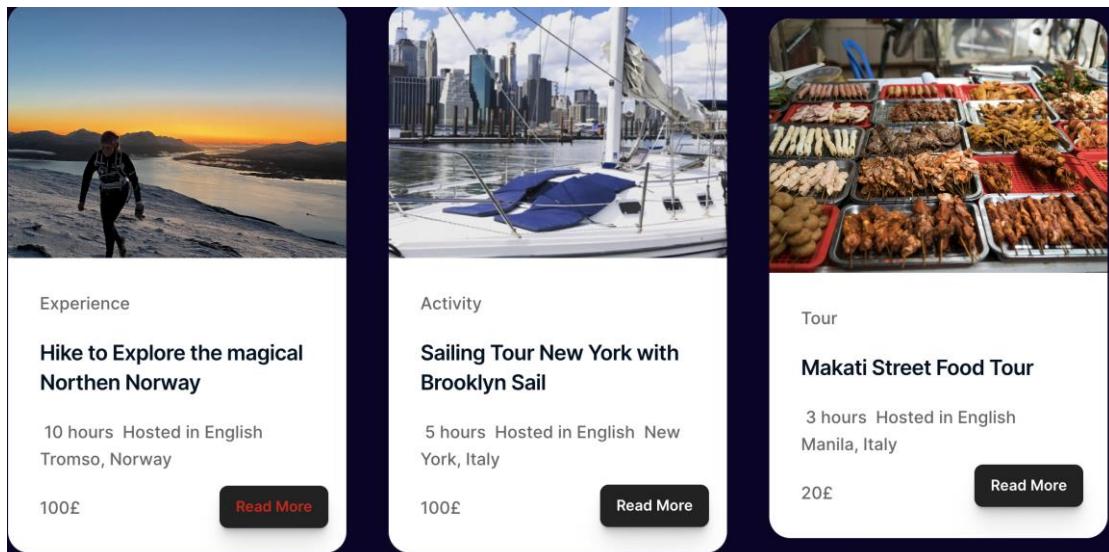


Figure 49. Activities

There is a 'Read More' button that when clicked, re-direct the user to the specific activity page.

The image shows a detailed activity page for a 'Slum tour'. At the top, there's a navigation bar with 'GoWanderer' logo, 'Explore', 'Sign-up', 'Login', a search icon, and a 'Become a service provider' button. Below the title 'Slum tour' and location 'Full day Hosted in English and Hindi Bombay, India', there's a large photo of a man in a slum setting. To the right, it says 'Tour provided by Salim' and shows a profile picture of him. A list of stops in the itinerary is provided, along with a price of '40£' and a 'Buy now' button.

Slum tour
Full day Hosted in English and Hindi Bombay, India

Tour provided by Salim

Itinerary:

- Place where Slumdog Millionaire was shot
- Leather Industries
- Pottery
- Making of soap
- Bakery
- Colour Dye
- Small Alley
- Schools & Hospitals
- Houses in Slum
- Plastic Recycling
- Muslim people making a shrine for Hindus
- Recycling of veg oil can
- The most interesting thing: guide himself lives in slums
- Slum market

40£ [Buy now](#)

Figure 50. Activity page

On a given activity page, user can read the activity description, as well as book the service and contact the service provider.

Since the website builder is relatively restrictive and does not have any Booking Management system , not in built messaging service plug-in, there were partially constructed to exhibit the concept.

The image shows two side-by-side web pages. On the left, a white-themed booking form titled 'Sohag Noman' with a 'POWERED BY Calendly' logo. It asks 'Select when you would like to do this' and includes fields for '7 hr' and 'Based on city'. A note says 'Provide your contact email and number during the check-out, for any request please contact us.' Below is a calendar for July 2024 with days numbered 1 to 14. On the right, a dark-themed contact section with a large heading 'Any question? Contact Salim'. It has input fields for 'Name' and 'Email', a larger 'Message' area, and a 'Send' button.

Figure 51. Activity page, booking form

The booking can be done through Calendly plug-in, where user can select the date and time of the booking. To book the user needs to input the name, email and a short description.

If the user has any request or wishes to contact the service provider, they can do so through the contact section on the right. This was built by utilising a simple form.

Framer allows users to have a CMS (Content Management System) that contains a catalogue with all the items.

A screenshot of a CMS interface titled 'CMS'. The left sidebar shows a 'Collections' section with a 'Product catalogue' item. The main area displays a table with columns: Product name, Slug, Categ..., Host details, Time and place, Info, Price, Product..., Host..., Payme..., and a '...' button. Six items are listed:

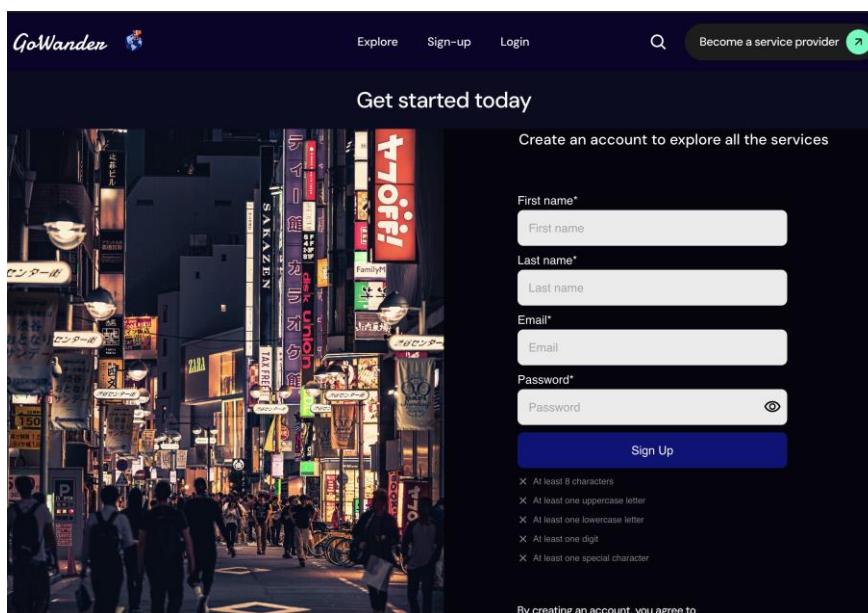
Product name	Slug	Categ...	Host details	Time and place	Info	Price	Product...	Host...	Payme...	...
Hike to Explore the m...	hike-to-explore-the-ma...	Experi...	Experience provided...	10 hours Hosted in English Troms...	Any question? C...	100€				...
Sailing Tour New York ...	sailing-tour-new-york-w...	Activity	Experience provided...	5 hours Hosted in English New Yo...	Any question? C...	100€				...
Makati Street Food Tour	makati-food-tour	Tour	Tour offered by Mari	3 hours Hosted in English Manila...	Any question? C...	20€				...
Slum tour	slum-tour	Travel	Tour provided by Sal...	Full day Hosted in English and Hi...	Any question? C...	40€				...
Photoshoot in Shibuya	photoshoot	Class	Photoshoot class pr...	5 hours Hosted in English and Ja...	Any question? C...	70€				...
Pasta making master ...	pasta-making	Class	Cooking class hoste...	7.5 hours Hosted in English and It...	Any question? C...	50€				...

Figure 52. CMS catalogue

Although this sounds like a nice feature, it limits the user's freedom because the items inside the catalogue are not individually customisable, but they follow the criteria specified on the first product in the catalogue. The Catalogue contains all the services offered in the platform, but they cannot be individually customised. This is a big limitation, resulting in a lot of restrictions. (See figure 45 above)

6.2.4 GoWander Sign-up and Login pages

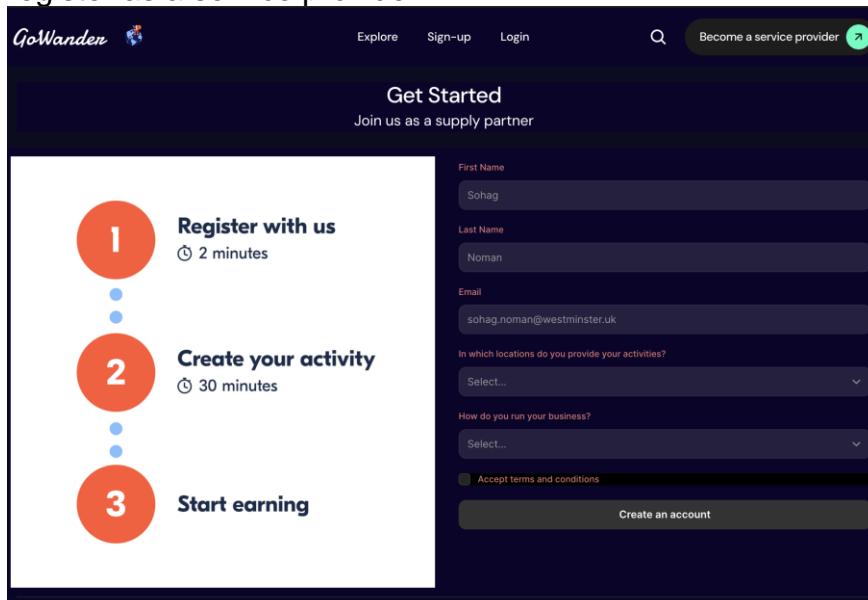
The user is able to sign-up into the platform. The sign-up form was made utilising an external plug-in offered by Framer called FramerAuth. This service allows users to copy and paste sign-up and login forms, that when connected to FramerAuth server, are completely functional and functions as an authentication provider. Unfortunately to use that functionality there is a subscription charge, hence in GoWander's prototype the forms are not functional and are shown for informative purpose.



The sign-up form for GoWander is displayed on a dark-themed web page. At the top, there is a navigation bar with links for 'Explore', 'Sign-up', and 'Login'. A search icon and a button to 'Become a service provider' are also present. The main heading 'Get started today' is centered above a form field. To the left of the form is a photograph of a busy street at night with many illuminated signs. The form itself has fields for 'First name*', 'Last name*', 'Email*', and 'Password*'. Below these fields is a large blue 'Sign Up' button. To the right of the password field, there is a list of validation rules: 'At least 8 characters', 'At least one uppercase letter', 'At least one lowercase letter', 'At least one digit', and 'At least one special character'. At the bottom of the form, a small note states 'By creating an account, you agree to...'.

Figure 53. Sign-up form

Since users can supply a service, that delivers more functions to the user therefore a designated page was established solely for user who wishes to register as a service provider.



The service provider sign-up form is also on a dark-themed GoWander page. It features a 'Get Started' heading and a sub-instruction 'Join us as a supply partner'. On the left, there is a vertical list of three steps: '1 Register with us' (estimated time: 2 minutes), '2 Create your activity' (estimated time: 30 minutes), and '3 Start earning'. To the right of this list is a form with fields for 'First Name' (Sohag), 'Last Name' (Noman), 'Email' (sohag.noman@westminster.uk), and 'In which locations do you provide your activities?'. There are dropdown menus for 'How do you run your business?' and 'Select...'. At the bottom of the form is a checkbox for 'Accept terms and conditions' and a large blue 'Create an account' button.

Figure 54. Service provider sign-up form

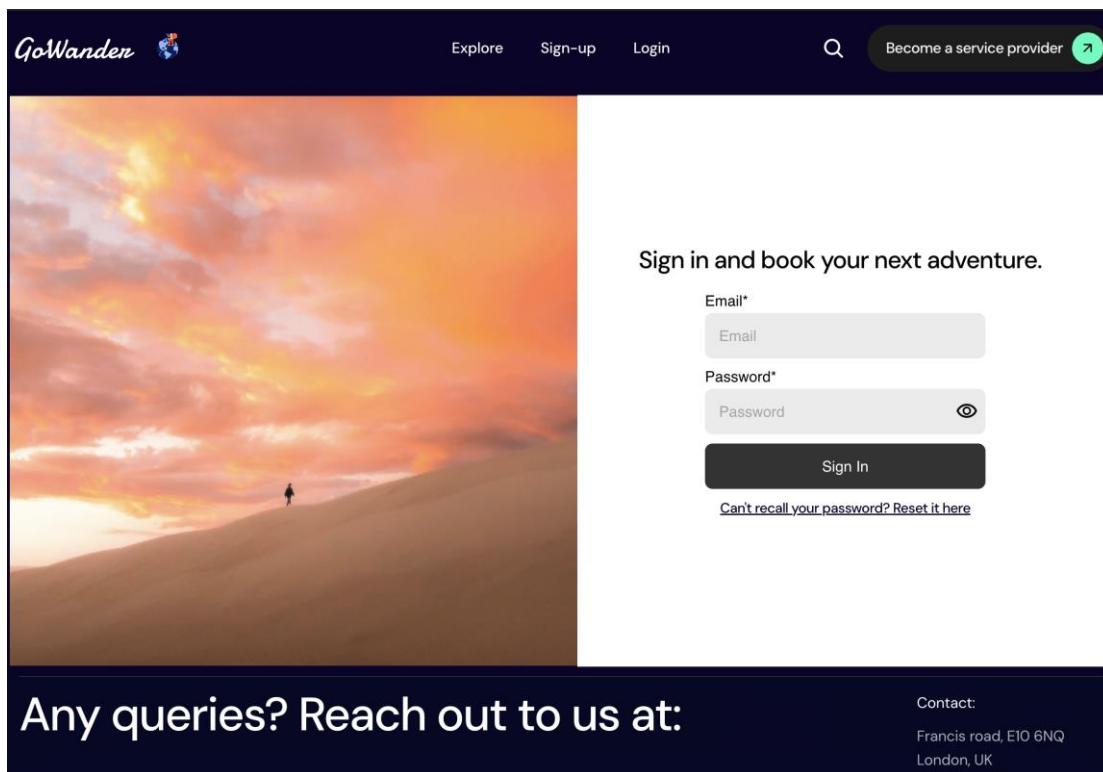


Figure 55. Login form

6.2.5 GoWander User Dashboard and Request Service page

When user has logged in, they can explore the main dashboard where they can manage their profile, change password or request a service.

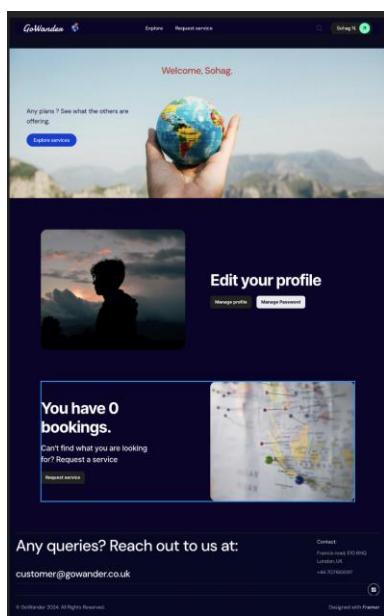


Figure 56. User dashboard

When user has logged in, they can explore the main dashboard where they can maintain their profile, reset password or request a booking. Since this is one of the need for GoWander was to allow user's to request a service , if what they are

seeking for is not available. This simple feature have been incorporated into the user's dashboard. When clicked, user is brought to the request booking page where there is a form that allows the user to request the desired service.

Figure 57. Request form

Same flow is for the service provider. When the user has logged in, they can explore the main dashboard where they can edit their profile, change password , or list a service. Since this a necessity for GoWander was to allow service providers to offer their service ,they can click the CTA button on their dashboard. When clicked, user is brought to the list a service page where there is a form that allows the user to list the service they wish to provide, and upload photo of the service.

Figure 58. Enlist a service form

6.3 Limitations

As described in chapters 4 and 5, there are various restrictions with a website builder like Framer.

Most of the requirements and use cases created throughout the system design were not implemented in the prototype.

The student plan provides limited functionality, and most of the resources were constrained during the website's creation.

Here is a list of features that have been highlighted throughout the requirement gathering and in the use case diagram but have not been implemented. Framer does not provide these features.

- The Content Management System provided by Framer does not allow to personalise the product/items.
- No database to store data -No built-in feature provides native registration form, login form, and database management.
- No native payment processing system plug-in; in order to implement this feature, you have to buy the service from a third party and integrate it into the website.
- No native support for e-commerce. GoWander aims to act as a travel marketplace, but the website builder does not have any e-commerce-related feature in its platform that can be integrated when building a website.
- No booking management system to keep a record of the booking
The student plan provides limited functionalities.
- Framer only has CSS/JS integration, no database integration, and no internal database.

7. Testing

7.1 Functional testing

This chapter will examine the testing conducted on the prototype of GoWander to detect any issues or errors that could impede its functionality or prevent it from meeting the required specifications.

Testing is an integral component of the software development life cycle since it enables the detection and correction of problems prior to the software's delivery to end users.



Figure 59. SDLC lifecycle

Functional testing is a crucial component of software development that entails testing the software's functionality to verify that it functions as intended. Black and white box testing is the predominant functional testing technique employed in software testing. Black box testing refers to testing the software's functionality without any knowledge of its underlying workings, structure, design, or implementation. Instead, the programme is evaluated based on its functionality and behaviour (Hamilton, 2023).

White box testing, on the other hand, evaluates the internal structure and design of the software in addition to its functioning. This necessitates evaluating the code structure, internal mechanisms, and sequence of the software. White box testing necessitates a thorough understanding of programming and implementation and is more labour-intensive than black box testing. (Collins, 2023)

Black box testing is a time-efficient method that does not necessitate familiarity with programming languages. However, it might pose challenges in generating test cases in the absence of a functional specification. White box testing, in contrast, is highly efficient in identifying faults, particularly concealed errors, and enhancing code performance. Nevertheless, it necessitates a comprehensive understanding of programming and implementation and requires more time to carry it (Javatpoint, no date).

In this case of the GoWander, black box testing was picked as the ideal technique for evaluating the functionality of the prototype's features. The prototype's functionalities were not unduly complex, thus it was straightforward to evaluate them against the final requirements and desired output. The outcomes of the black box testing are described in the tables below.

Test case Number	Description	Expected Result	Actual Result	Pass/Fail/ Poorly Implemented	Comments
1	User register to the website	The user should be able to register to the website.	User is able to register to the platform, there are 2 different sign-up pages, one for normal users and one for service providers.	Pass	This meets FR1 that all users should be able to register to the platform.
2	User search, and filter for local services	The user can search and filter the services	User can only filter through the existing services in the platform	Poorly implemented	This meets FR2, but Framer does not have any built-in proximity service feature integration so user cannot filter by location.
3	User create a 'request' post asking for the desired service required in a specific country. After the post is created, user should be able to edit or delete the post.	User can create the post, manage and delete it.	User can only create the post	Fail	There is no feature that allows to integrate a database in Framer. In order to have this functionality there should be at least some API with GET and POST requests that will automatically store in the DB the post.
4	User to book services provided by a service provider.	User can select the book services from a service provider	User can view the service and book it.	Poorly implemented	No booking management system in Framer that allows this. There is also no external tool that can be integrated to the prototype.
5	User can contact the service provider	User can contact the service provider.	There is a form that allows to send a message to the service provider	Pass	
6	User can browse and maintain user's booking itinerary, such as edit, delete and view their bookings.	User can browse and maintain user's booking itinerary, such as edit, delete and view their bookings.	User can only browse	Poorly implemented	User can only browse and book service. There is no booking management system or DB that would keep track of the bookings.
7	Users can pay through different payment gateways.	User pay their purchase through different payment gateways.	No payment gateways integrated.	Fail	Third party provider's checkout system needs to be integrated in order to deliver this feature.
8	Signing and login into account	User will be able to login or sign into account using the credentials created.	Users can successfully login or sign into website using credentials provided.	Pass	

7.2 User testing

Collecting user input was a vital stage in gathering insights into the strengths and shortcomings of the prototype as well as understanding consumers' overall experience of using it. To obtain input, the link of the prototype was emailed to numerous people however owing to certain time constraints a proper use testing was not documented and recorded.

8. Conclusions and reflections

This chapter will provide an overall review and evaluation of the project, focusing on the primary findings presented in the previous chapters of this report. This chapter will feature self-reflection and recommendations on how the project or prototype may be improved in the future to boost the reliability of the prototype and creation of a real world web application. We will also address the triumphs and limitations encountered, as well as the obstacles that we came into during the research and implementation phases.

This project's purpose was to construct a prototype that acts as a marketplace. The idea behind this was mainly formed by an analysis of the present players employing a C2C business model at initially , and the enthusiasm for travelling of the author. We sought to merge these 2 notions and provide a solution that would have a meaningful use case. This IT solution is meant to reflect the conclusion of the strategic study. To measure the project's success, the business's objectives were determined, and comprehensive research was undertaken to get an understanding of similar web apps or offers in the same market segment.

Overall, the project partially effectively met its key objectives, such as conducting a thorough market analysis of the firm and its competitive environment. The secondary purpose was to develop a prototype that reflected the concepts of the project based on the competitive analysis, requirements, and system design. The prototype was not as detailed as it should have been, owing to a lack of expertise and competency. This project experienced various limitations, and most of the critical features offered during the requirement planning were not executed.

One potential counterargument to the conclusion is that the prototype has very basic functionality and does not entirely reflect all the ideas suggested in the PSPD and FYR.

However, It is important to note that GoWander is a concept and with enough knowledge and resources, it can become a start-up , go through seed rounds to collect resources from investors and become a real application with the potential to become a small player in the market competing in the travel industry.

Reflection

The implementation of the web application was initially underestimated because of an assumption that the fundamental information learned during the first two years of university was sufficient to create a fully functional website. As a BIS student and an individual pursuing a career in the business information systems industry after university, it became evident over time that constant web development practice and comprehension of new tools are essential to the completion of a project.

Nonetheless, the experience of relearning and obtaining new technical and interpersonal abilities was a fantastic chance for learning. The obtained knowledge could be applied in a professional context in the future. Facilitating workshops and conducting user interviews, UX design, planning, requirement elicitation, and more are necessary abilities for most IT workers in the sector.

The project achieved various successes, including:

- Learning a new tool such as Framer for prototyping,
- Successful implementation of the Waterfall technique, notably the usage of a Kanban board and sequential planning for the project. The methodology offered structure and a clear deadline, putting discipline into the project.
- Acquisition of new abilities, such as conducting thorough market and comparison analysis, performing in-depth academic and non-academic research, and conducting questionnaires.

These talents can be used for future academic and professional aspirations.

Despite the fact that there were some successful components of the project, there were also several sections that suffered difficulty. For instance, managing additional responsibilities with project requirements made it difficult to dedicate sufficient time for the final user testing and assuring the website's functionality. The lack of a careful examination of numerous tools in the market for the prototyping of the platform generated a lot of gaps between presented ideas and implementation of them. In addition, the implementation of a Payment system, Booking Management System, Content management System ,Review system were not carried out. Lastly, the main problem faced was underestimating the project's challenges, the assessment of the time needed to the completion of the project and certain personal circumstances. Nonetheless, these obstacles were addressed with patience and adaption.

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Appendix I

- Companies using different C2C business model in various sector

Criteria	Airbnb	Viator (Former Experiences)	TripAdvisor	Etsy	Uber	Upwork
Key Information	Founded in 2007, Airbnb launched experiences in 2016. Airbnb is estimated to have over 150 million users, with over 45 million users in the U.S. Airbnb has over 7 million active listings in over 220 countries.	Founded in 1995 Operates in more than 1,300 destinations worldwide. Direct access to more than 100,000 bookable activities 9m visits per month	Founded in 2005 500 million visitors every month. 97.5 million active buyers worldwide in 2023. 7.47 million sellers in 2022	Founded in 2009 150 million users monthly Operates in 90 countries. 9.4 billion trips carried out in 2023. Available in 900 cities	Launched in 2012 Operates in 6 major countries. Paid out over 1 billion to taskers More than 500,000 taskers	
Services	Online marketplace for short and long term stay and experiences.	Online marketplace party that sells tours and activities operated by other companies.	E-commerce company focused on handmade or vintage items and craft supplies.	Ride sharing company providing a range of services such as deliveries, rental, etc.	Online marketplace that matches freelance labour with demand, allowing people to find help with tasks.	
Key features	Airbnb hosts list many kinds of experiences. User don't have to pay to list their properties. Listings can include written descriptions, photos with captions, and a user profile that potential guests can get to know a bit about the hosts. User set the price. User can search the Airbnb database—not only by date and location, but by price, type of experience, host info, and review the experiences. Airbnb provide extensive coverage for both host and user.	Provides travellers with trusted reviews and a wealth of travel-related information. Creates a sense of community among travellers worldwide. Offers booking services for convenience and a seamless travel experience. Facilitates price comparison for cost-conscious travellers. Attracts a global user base seeking reliable travel information and services.	It allows to sell vintage products, but they categorize a product as vintage if it is 20 years old or higher. Sellers have a rating system which helps buyers make their decision. It offers various payment methods. Sellers have the flexibility to create a shop within the app itself.	Real time journey tracking Easily split the fare Include multiple drop-off locations. Scheduled Rides allow you to plan the ride. Ride-hailing: Users can request a ride from their current location to a desired destination and track the arrival of their driver in real-time. Price estimation: The app provides estimated fares for trips based on distance and time.	Tasker set the price Booking and scheduling system Bidding System	
Business Model	Sharing economy platform (Accommodation sharing)	P2P Marketplaces These marketplaces enable individuals to share assets or resources with each other. This means the services may also appear on partners' sites like TripAdvisor, as well as airlines, hotels, travel publications, and more. One Viator listing gives the seller access to millions of travellers around the world via Viator, TripAdvisor, and the vast network of partners.	Product Marketplaces: When a provider sells tours and activities on Viator, they're automatically distributed 3,500 partner networks, too.	Sharing economy platform These platforms facilitate buying and selling of physical goods between individuals.	Sharing economy platform Uber is a P2P ride sharing application with those offering them.	Service-based P2P marketplaces connect individuals seeking services

Companies using different C2C business models.

- Pestle detailed analysis

PESTLE		Impact Analysis	
Category	Factor	Issue	Opportunities
Political	Regulatory environment	Different countries across the globe have limited the operating power of big technological firm.	This creates opportunities for small businesses like GoWander to enter the market and compete against big player in a fair way.
	Political instability	War in Ukraine, Palestine, Sudan, etc. Operating in these countries is becoming extremely hard due to technological restrictions.	This can foster engagement between local users in those specific countries, improving social networking and promoting local businesses among the residents.
Economical	Global economic trends	High inflation rate and continuous increase in cost of living.	Rising costs may create an increase in userbase because promoting C2C transactions.
	Brexit	Our platform is UK based but to operate in Europe and worldwide we will need to comply to different legislations.	Operating in some countries might be cheaper.
	Currency exchange rates	They affect pricing and affordability, particularly in a platform operating across numerous nations. Krugman, P., Obstfeld, M., & Melitz, M. (2015).	
	Rising unemployment rate	Users may spend more time to seek a job. This can lead to inactivity in the platform.	Potential increase in users willing to provide their time/ services as freelancer.
	Current player market dominance	Big tech companies integrating e-commerce in their platform.	This can have both a positive and negative outcome. (See key findings)
Social	Cultural factors	Understanding and honouring local customs and etiquette is vital in a global marketplace. Hofstede, G. (2001)	
	Travel trends	The popularity of various travel trends, such as adventure tourism, eco-tourism, or cultural tourism, affects the types of services in demand. Buckley, R. (2012)	(See key findings)
Technological	Innovation in E-commerce:	Rising in AI	AI features can be implemented to boost user experience and operational efficiency. These approaches are innovative ways to build algorithms that can recognize pattern and predict behaviours.
	Data security	Government	Machine learning algorithms can be used to monitor users' activities. Ensuring comprehensive cybersecurity measures to protect user data.
	Online censorship	More than 50 countries across the globe are increasing the internet censorship in their countries. Freedom on the net (2021)	
Legal	Data protection regulations	In at least 38 of the 70 countries assessed this year, governments initiated legal or administrative reforms affecting companies' management of user data. Freedom on the net (2021) Laws like GDPR in Europe define how firms must manage and secure personal data. Kuper, C., Bygrave, L. A., & Doherty, C. (2020)	Implement a strong Data management and security system.
	Tax	Tax policies across the globe	(See key findings)
	New legislations	Authorities in at least 24 countries passed or announced new laws or rules governing how platforms treat content. Freedom on the net (2021)	Robust safeguards against the potential responsibility of intermediaries
Environmental	Sustainability practices	Promoting environmentally responsible processes, by assessing the impact on the environment	All the processes will be happening online, allowing the business to be paperless. The platform could implement virtual machines that run in one server, reducing energy consumption. Ensuring the services listed do not lead to over-tourism and local environmental deterioration.

- Anonymous survey for requirement gathering

An anonymous survey was conducted to evaluate and determine travel preferences and behaviours among different age groups. The primary tool used to conduct this survey is Google Forms, which allowed us to develop a collection of questions and gather all the data

required to support our thesis. This is necessary for a platform that allows users to facilitate their travel planning schedule. The survey involved a total of 35 participants.

<https://docs.google.com/forms/d/1HaI16AKRzWs5z-vHiiYILHF-hVhIZRHJ5uhEPesBA/edit#responses>

After the poll, it's evident that many participants confronted a series of barriers/challenges during their travel overseas. That's why it's necessary to create a platform that allows tourists to connect with the locals in other nations, to organise their itinerary, means of transportation and visiting schedule in advance. In this case, tourists do not necessarily have to spend much time or effort studying information in that specific country. If the user searches for a particular service that is unavailable or given, they can request that exact service in the chosen country by posting a post. Residents in that country can answer the post and communicate with the tourists. Both travellers and local providers will be users of the platform.

The user can register, search, book, create, communicate, and pay for the services. The website will have a particular section called 'Provide a service' where users can provide a service.

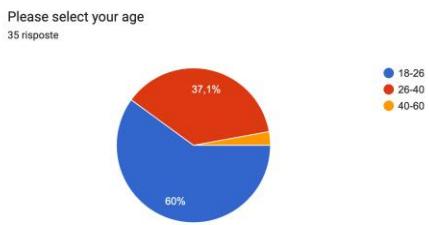


Figure 1: Percentage of different participants

The figure above (Figure 1) represents the number of participants grouped by age group. We can see that 60% of them are between 16-26 years old, which translates is a very young age group.

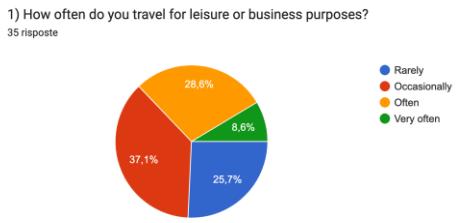


Figure 2: Percentage of travel frequency

The figure above (Figure 2) represents the frequency of the travel habits of the participants. We can understand that more than 33% of the interviewees travel often or very often.

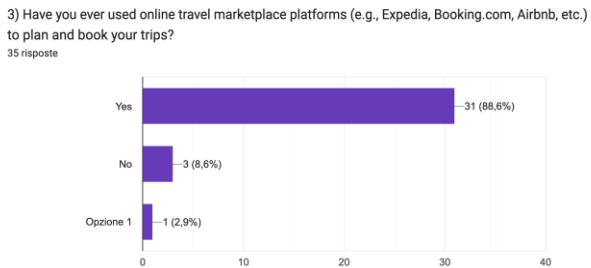


Figure 3: Travel marketplace usage

The figure above (Figure 3) shows that almost 89% of the participants have used a travel marketplace platform, which is the norm nowadays.

5) What are the main difficulties or frustrations you've encountered when using travel marketplace platforms?
35 risposte

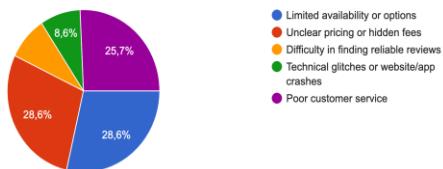


Figure 4: Main difficulties encountered.

In this figure, we can see the main difficulties faced by the participants while scheduling a journey. Many users have selected 3 main difficulties:

- Limited availability
- Poor customer service
- Unclear prices

7) Is it something you'd be open to doing to have a local guide you through the travel planning process?
35 risposte

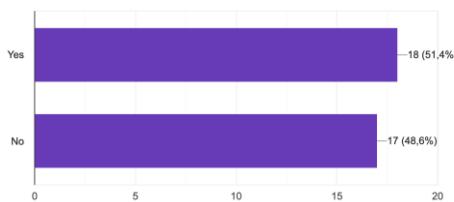


Figure 5: Willingness to have a local guide.

The figure above shows us how most of the participants are willing to have a resident to help them throughout their planning process in the desired destination.

8) Does it make sense to request a service while you are travelling to a country that is not your home country? (This can be anything you may need)
35 risposte

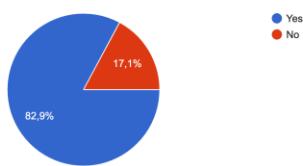


Figure 6: Percentage of participants willing to request a service abroad.

The figure above shows us how most of the participants are willing to request a service while travelling abroad. Assuming that the request will be based on their circumstances or needs, almost 83% of the users are likely to require additional services.

9) Is the idea of a platform that lets you choose a service from various local providers appealing?
34 risposte

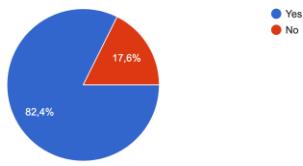


Figure 7: Willingness to choose services from various providers.

The percentage shows how most of the users would like to have a list of local providers to choose from in the desired country.

10) What difficulties do you usually encounter while travelling abroad?

35 risposte

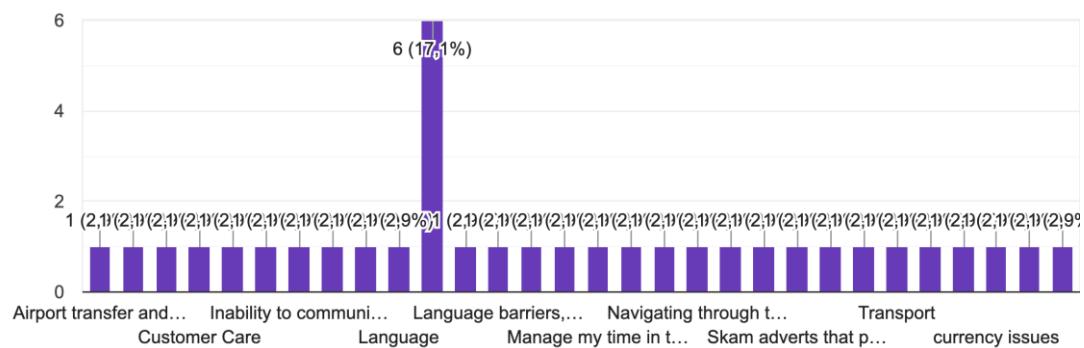


Figure 8: Difficulties faced by participants abroad.

Language Barrier / Communication issues	<ul style="list-style-type: none"> - Inability to communicate with locals
Airport Transfer / Transportation Issues	<ul style="list-style-type: none"> - Inflated prices for foreigners - No transportation guides
Safety related issues (Especially for girls)	<ul style="list-style-type: none"> - Lack of options for only women - Lack of knowledge about the safety of certain areas - Scammers
Food option (Halal)	<ul style="list-style-type: none"> - Inflated prices for foreigners
Currency related issues	<ul style="list-style-type: none"> - Currency exchange issues
Accommodation	<ul style="list-style-type: none"> - Waiting time for check-in - Scam advertisements
Sightseeing	<ul style="list-style-type: none"> - Lack of knowledge about the landmarks to visit. - Lack of support for unplanned trips - Time management for sightseeing
Bureaucracy	<ul style="list-style-type: none"> - Visa related issues - Document related issues - Lack of support in case of emergency

Customer Service	<ul style="list-style-type: none"> - Lack of customer service / support in case of travel agency booking - Last minute booking cancellations
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After the poll, it's evident that many of the participants confronted a series of barriers/challenges during their travel overseas. That's why it's necessary to create a platform that allows tourists to connect with the locals in other nations, to organise in advance their itinerary, means of transportation and visiting schedule. In this case, tourists do not necessarily have to spend a considerable amount of time or effort studying information in that specific country. If the user is searching for a specific service that is unavailable or given, they can request that exact service in the chosen country by posting a post. Residents in that country can answer the post and communicate with the tourists. In the platform, both travellers and local providers will be users.

The user will be able to register, search, book, create, communicate, and pay for the services. The website will have a particular section called 'Provide a service' where users will be able to provide a service.

Appendix II

Requirements:

Requirement ID	Description: User and Admin	Use case mapping	Type of requirement: -Essential -Advanced -Luxury	Functional Requirement (FR) Non-Functional Requirement (NF)	MoSCoW Prioritization
FR01	User should be able to register to the website	User registration	Essential	FR	Must
FR02	User should be able to search, and filter for local services in a selected destination.	Platform filtering	Essential	FR	Must
FR03	User should be able to create a 'request' post asking for the desired service required in a specific country. After the post is created, user should be able to edit or delete the post.	Post creation and management	Essential	FR	Must
FR04	User should be able to book services provided by a service provider.	Service booking	Essential	FR	Must
FR05	User should be able to contact the service provider.	Contacting Provider	Essential	FR	Must
FR06	User should be able browse and maintain user's booking itinerary, such as edit, delete and view their bookings.	Booking Management	Essential	FR	Should
FR07	Users should be able to pay through different payment gateways.	Payment management	Essential	FR	Could
FR08	User should be able to create post to list the service they want to provide. (If user list a service in their country of residence, they will be considered as a local provider.)	Service post creation	Essential	FR	Should
FR09	Local providers should be able to manage their listing, change availability, determine price on their listed activities.	Listing management	Essential	FR	Should
FR10	Local providers should be able to send, receive, and manage queries.	Contact users	Essential	FR	Must
FR11	User should be able to rate and comment a service they have purchased/provided.	Service Rating	Essential	FR	Could
NFR01	System should send a confirmation email after every reservation.	Service confirmation	Essential	NR	Must
NFR02	System should notify users about any change in the existing bookings.	Change notification	Essential	NR	Must
NFR03	Admin should be able to moderate contents published by users.	Post moderation	Essential	NR	Could
NFR04	System should allow all users to manage their profile	Profile management	Essential	FR	Must
NFR04	System should provide the 'Become a Service Provider' option.	Change user type	Advanced	FR	Should

NFR06	System should have a database with records of all user's account.	User records	Essential	FR	Essential
NFR07	System should have secure payment system	Payment system	Advanced	FR	Should
NFR08	System should be able to identify user's geolocation	Geolocation	Luxury	FR	Could
NFR09	System should allow users to contact other users through a messaging interface.	Messaging service	Luxury	FR	Should

Website link:

<https://gowander.framer.website/>

Project Demo Link:

<https://drive.google.com/drive/folders/1EdiGqwxK6zbNgWIDNT6naDIS8ZO2KLfm?usp=sharing>