AI Acknowledgement Supplement

Master's degree thesis

The impact of data governance environment on users' attitude in tourism online platforms: the mediating role of consumer trust

Your Name/Student Number	Course	Date
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The impact of data governance environment on users' attitude in tourism online platforms: the mediating role of consumer trust

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Abstract

Title of thesis: *The impact of data governance environment on users' attitude in tourism online platforms: the mediating role of consumer trust*

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This thesis investigates data governance practices on online travel platforms, focusing on user perceptions of privacy, data policies, and ethical considerations. It examines how these factors influence consumer trust and attitudes toward data governance, filling a critical gap beyond security issues. The literature review establishes a theoretical framework based on GDPR, privacy awareness, and ethical practices. Using a quantitative, exploratory approach, 138 users of platforms like Airbnb, Booking.com, and Expedia in Ireland were surveyed. The survey explores the relationship between user attitudes toward data governance and factors like data policy, privacy awareness, and ethical concerns, with consumer trust as a mediating variable. The findings show that effective and transparent data management positively impacts user perceptions, highlighting the need for platforms to improve communication about privacy policies and ethical practices. Despite GDPR, user perceptions and engagement with these policies vary, indicating a need for better user education. Ethical concerns and transparency remain significant challenges, with users skeptical about data handling practices. Additionally, while users show moderate confidence in transaction efficiency, improvements in service quality and consumer protection are needed. This study provides insights for platform owners, policymakers, and stakeholders to enhance data governance frameworks and user trust. Future research should explore the impacts of data policies, privacy awareness, and ethical practices on user behavior, considering age-related differences and cross-cultural perspectives. Addressing barriers to effective data governance will help bridge the gap between privacy policies and user actions, contributing to more trustworthy strategies in the digital era.

Declaration

Submission of Thesis and Dissertation
National College of Ireland
Research Students Declaration Form
(Thesis/Author Declaration Form)

Name: Olga Volkodav

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Degree for which thesis is submitted: MSc in International Business

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Signature of research student: *Olga Volkodav*

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I'm also very thankful to my family for their love and support. Most of all, I want to express my deepest appreciation to my husband. Your belief in me and constant encouragement kept me going through the toughest times.

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Abbreviations

AI – Artificial Intelligence

CCPA – California Consumer Privacy Act

EU – European Union

GDPR – General Data Protection Regulation

IoT – Internet of Things

OTA – Online travel agency

PbD – Privacy by Design

PET – Privacy-enhancing technology

PII – Personally Identifiable Information

THOs – Tourism and hospitality organisations

UX – User Experience

Part I: Introduction

1.1. Background and context

In today's tech-driven era, the travel industry is undergoing a data revolution, as end-user data is easy to obtain (Kambatla et al., 2014). Key influencers in tourism, such as Airbnb (www.airbnb.com) and Booking (www.booking.com), Expedia (www.expedia.ie), and Kayak (www.kayak.ie), effectively use the benefits of customers' data collection regardless of location or time of the day (Llach et al., 2013). Moreover, access to customer data helps tourism and hospitality organisations (THOs) acquire the knowledge needed to sustain and expand their businesses. For instance, during the COVID-19 data analysis proved crucial in providing insights for critical business decisions when the tourism industry was significantly disrupted.

Without a doubt access to user-generated data is a valuable resource for organisations to research customers' preferences; however, tech advancements also influence consumer behaviour and how tourism organisations interact with their customers (Yallop et al., 2023; Foroudi et al., 2017). Due to restrictions placed by COVID-19, two new key tourism transformation areas have recently emerged: touchless travel and digital health passports. These developments led to the rise of traveller digitization which may be required to provide more personal, cryptographic, and medical data (Leong, 2020). However, due to information digitisation, there also has been a significant spike in incidents of identity theft, leaked personal data, and corporate security breaches. As a result, public concern is increasing exponentially regarding protecting personal information from unauthorised collection and use (Kamleitner et al., 2018).

Within the European tourism sector around 21% of EU citizens used websites or apps to book accommodation in 2019 (Hellard, B. (2020). At the same time, The Guardian reported in 2023 that booking.com customers fell victim to deceptive emails. The following year, a 2024 report by The Journal revealed booking.com's denial of any security breaches after a phishing scam that consumers had observed. On April 10, 2024, Airbnb alerted its community about a surge in scams, including schemes involving social media and identity theft. Such fraudulent activities are

widespread within the travel industry; thus, to reassure every user that their data is protected, it is crucial to show consumers how safe the travel platform is.

Data-driven technologies promise better services and improved quality, but they also raise concerns about the ethical practices of the platforms to which consumers freely provide their data. Moreover, utilising the full potential of data is challenging because of the complexity of legal regulations. It is evident particularly in safeguarding customer data integrity due to the engagement of diverse stakeholders – users, platform owners, and government (Conger et al., 2013). As a result, this has important implications for data governance frameworks that might be utilized by Airbnb.com, Booking.com, Kayak.ie and other travel providers to ensure ethical practices (Harvard Business Review Analytic Services, 2019).

1.2. Statement of the problem

Previous studies have primarily focused on assessing the effects of data security issues on THOs and their customers rather than on the influence that the data governance environment might have on consumer perception. Jiang et al. (2023) highlighted the overall importance of consumer privacy research in the tourism and hospitality industry. At the same time, the research has enlightened a critical dimension not considered in prior research - users' attitudes toward participation in data governance. The research emphasised the need for more research in this sector, considering its unique characteristics as a data-driven industry with strong ties to the digital environment.

Furthermore, previous research has shown that when travellers believe that the organisation responsible for a data breach did not adequately protect their information, their trust and intention to revisit the destination significantly decrease (Chen et al., 2019). Aguirre et al. (2015) observed that the unauthorised collection of personal information by companies resulted in a decline in click-through rates. In contrast, according to Kim et al., 2022, users' ethical concerns arising from privacy breaches and data exploitation by travel providers do not affect their perception of sensitivity and information protection.

However, there remains to be a notable gap in understanding the impact of these concerns in a multi-component environment. Data governance in the travel industry goes beyond legal compliance and fraud prevention. It is crucial for building customer trust, improving services, and reducing the risks of data breaches. Privacy awareness was discovered by Ioannou et al. (2020) to be a context-based factor, while mediated by trust, that can influence willingness to provide personal information (Sah et al., 2023). On the contrary, Xu et al. (2021) found that privacy concerns increase consumers' sense of platform risks, decreasing their trust. Thus, the proposed research positions consumer trust as a mediating variable, as it might increase the likelihood of perceiving and accepting the data governance practices of that platform positively.

While previous research has provided the groundwork for understanding the significance of data governance's implications, further research is needed in this area. Theoretical frameworks for trust, privacy, and ethical concerns provide valuable insights, but more critical examination is required to understand the complex interplay between these concepts and user attitudes.

1.3.   Significance of study

By contextualising research within this framework, the study aims to fill current gaps and contribute to understanding data governance processes in the online travel industry. Researching this aims to ensure that moral and security concerns are considered when collecting, storing, and analysing data and information. Thus, showcasing it to the end user and transmitting to the end-used assurance of the graceful handling of their data, influencing consumers' sense of security while using tourism platforms. The findings of Sah et al. (2023) indicate that a privacy notice on a website leads to a substantial rise in privacy awareness among users. As a result, customers show decreased privacy worries and increased trust towards the service provider. Thus, privacy notices build trust between platform owners and users while allowing the former to acquire and keep clients. By utilising governance practices, travel platforms can customise offerings based on individual preferences.

For this reason, the study's findings might benefit travellers/customers and other stakeholders, including THOs and their employees, government entities, authorities, complementary industries, sectors, and the general public. Moreover, this research addresses the need for conceptual studies in data governance in various fields, including business, tourism, and hospitality.

As was mentioned earlier, the objective of the research is to draw on the other side of the picture, the user perspective, to understand how different aspects of the data governance environment contribute to the user's opinion toward data governance in the specific domain of online travel platforms. Therefore, the present study aims to investigate the following research questions:

RQ1: Whether data governance environment of online travel platforms affect users' attitudes?

RQ2: *What is the effect of the components - data policy, privacy awareness, and ethical concerns on consumer trust?*

RQ3: *To what extent can consumer trust influence users' attitudes towards data governance of online travel platforms?*

1.4. Proposed research

The methodology employed in this study is deductive reasoning, exploratory, and quantitative. This study will utilise a survey to collect data on user perceptions of data governance practices in online travel platforms. The prior research study's results by Jiang et al. (2023) were limited due to the presence of Chinese respondents, prompting research into the perspectives of Western cultural respondents. A survey in this study will target consumers of online travel platforms based in Ireland, a deliberate decision reflecting the region's thriving tourism industry and cultural variety.

Focusing on Western cultural respondents in Ireland enables the author of the thesis to gain a more thorough picture of data governance attitudes in the West.

Furthermore, Ireland's choice as the study location recognises its importance as a hub for domestic and international tourism, making it an ideal location to study attitudes towards data governance.

Survey participants will be prompted about their most recent usage of the travel platform – Airbnb.com, Booking.com, TripAdvisor.com, Kayak.ie, Expedia.ie, and Hotels.com. The survey will explore the relationship between variables; the dependent variable is users' data governance attitudes, and the independent variables are the elements of the data governance environment – data policy, privacy awareness, and ethical concerns. The sample size for this study was determined using the G Power tool calculation. Based on the desired statistical power, significance level, effect size, and anticipated model complexity, it was determined that a sample size of 138 respondents is necessary to achieve sufficient statistical power for the analyses in this study.

The constructs in the survey instrument are based on existing literature and previous research on data governance and consumer behaviour in online travel platforms. The construct has been used varying numbers of times in previous research: once for data policy evaluation, eleven times for privacy awareness assessment, once for ethical concerns, once for consumer trust, and once for data governance attitude. Prior research has shown that these constructs are valid and reliable, which gives this study a solid theoretical foundation.

1.5. Structure of study

The study is divided into seven chapters. Here is a brief description of each chapter:

•   *Chapter I*: Provides a background of the study and emphasises the significance of the research.

•   *Chapter II*: Reviews the literature and includes relevant previous research on this study's main topics and key concepts to support the suggested hypotheses.

•   *Chapter III*: Outlines the research's aims and objectives and positions research questions and hypotheses.

•   *Chapter IV*: Provides a detailed explanation of the methodology and procedures used to address the research question. This chapter also includes information about the sample size, the research instrument, and the data collection.

•   *Chapter V*: Presents the findings and analysis.

•   *Chapter VI*: Summarises and integrates the findings with previous studies to address the research question. This chapter also discusses the limitations of the research and practical considerations.

•   *Chapter VII*: Concludes the study and offers recommendations for future research.

Part II: Literature Review

2.1. Introduction

In today's world, where data holds enormous value, it is crucial to have a data governance strategy to utilise the benefits brought by data efficiently. Data governance involves managing the availability, usability, integrity, and security of data within an organization, including setting policies and standards to ensure data is accurate and protected. This analysis discusses concepts and theories that form this field's foundation based on prior research.

The analysis is divided into the following themes:

- **Data Governance Environment:** This includes the framework and practices an organization implements to manage its data. For example, consider Airbnb. Their data governance environment would include protocols for managing user data, defining who can access it, how it's safeguarded, and how it's utilized in decision-making processes. This ensures, for example, adherence to regulations like GDPR.

- **Consumer Trust:** This reflects the confidence that consumers have in a company's ability to manage their data securely and ethically. For instance, if Expedia is recognized for protecting customer data and clearly explaining its data usage practices, consumers are more likely to trust the site with their personal information and continue using its services.

- **Data Policies:** These are the rules and guidelines an organization establishes regarding the collection, use, and protection of data. For instance, Booking.com might have a policy stating that personal information will be used solely to enhance user experience and will not be sold to third parties without explicit consent.

- **Privacy Awareness:** This involves being informed about how your personal data is collected, used, and protected. When signing up for a new travel app, privacy awareness means reviewing the privacy policy to understand the types of data collected and the purposes for which it will be used.

- **Ethical Concerns:** These relate to evaluating whether data practices are fair and respect user rights. For example, if a company uses user data to target advertisements but fails to disclose how this data is used, it raises ethical issues.

Each theme is thoroughly explored to provide an overview of the current knowledge landscape, highlighting the work of different researchers and identifying areas that this thesis aims to investigate further.

2.2. Related work

2.2.1. Data Governance Environment

The foundation of effective data management, security, and utilisation lies within the data governance environment. This environment encompasses diverse frameworks and practices designed to address the complexities of data handling. Recent studies emphasise the importance of these frameworks in balancing data utilisation with privacy concerns (Filgueiras et al., 2023; Specht et al., 2021). However, there is growing recognition of the challenges posed by new data types from IoT devices and social media, which traditional governance approaches struggle to address comprehensively (Diène et al., 2020).

Businesses across both public and private sectors now handle unprecedented volumes of data (Filgueiras et al., 2023). Organisations have realised that a robust data governance environment can bridge the gap between individual privacy considerations and the benefits of data-driven services (Specht et al., 2021; EU Data Governance Strategy; von Ditfurt & Lienemann, 2022).

Recent developments underscore a shift towards adaptive governance models that can flexibly respond to technological disruptions and regulatory shifts (Yang et al., 2019). The integration of PbD principles has become crucial to mitigate risks and enhance transparency in data handling practices (Ducuing, 2024).

The rapid rise of digital platforms brings not only challenges but also opportunities for managing data. These platforms revolutionise how users engage with data, facilitating collaborative sharing among users and service providers to foster value creation (Brunotte et al., 2023; Lee et al., 2017). Governing data on these platforms introduces challenges due to diverse stakeholder interests and the delicate balance between innovation and regulatory compliance (Schreieck et al., 2016; Brunotte et al., 2023). Some researchers advocate for a holistic approach to platform data

management encompassing technical, legal, and ethical aspects (Jiang et al., 2023), while others highlight the complexities of balancing innovation with regulatory adherence (Schreieck et al., 2016).

Platforms like Airbnb and Booking.com exemplify this dilemma, leveraging user data to enhance services while navigating regulatory requirements and facing privacy breaches scandals worldwide (Lee et al., 2017; Brunotte et al., 2023). Globalisation adds complexity to data management for organisations as they have to deal with rules and regulations in various regions (Cheryl et al., 2022). For instance, the implementation of the GDPR in the European Union exemplifies how regulations can enhance data protection while influencing global practices. The GDPR's requirements have pushed companies worldwide, even global tech-giants such as Google, Meta and Facebook, to adopt comprehensive data protection measures to comply with its guidelines (Presthus et al., 2018; van Ooijen et al., 2019).

The increasing complexity of data management calls for adaptive governance models capable of responding to technological disruptions and regulatory changes (Yang et al., 2019). A good example is CCPA, which, like GDPR, aims to enhance data privacy but adds regional specifics that challenge global companies like Google to adapt their data practices accordingly (Cheryl et al., 2022). This legislation exemplifies the trend towards flexible governance models that accommodate diverse regulatory landscapes.

This issue is particularly evident in the travel sector, where companies operate beyond geographical boundaries, posing challenges in demonstrating compliance with data processing regulations to customers (Jiang et al., 2023). In 2023, Airbnb faced GDPR-related privacy violations, emphasising the importance of adhering to regulatory guidelines in data handling practices (Data Protection Commission, 2023). Compliance helps an organisation not only meet legal requirements but also build trust in data-driven services (Presthus & Sorum, 2018; van Ooijen & Vrabec, 2019).

Although digital data governance initiatives are often praised for their potential to enhance transparency and citizen trust (Matheus et al., 2020), they also face substantial challenges in practice. Transparency is usually viewed as providing

visibility into specific processes, but its realisation in digital contexts remains complex and multifaceted. Buijze (2013) argues that transparency serves dual functions: empowering citizens to make informed decisions and enabling external scrutiny of data processors' actions. However, the mere provision of information does not automatically translate into transparency; instead, the quality and relevance of information disclosed are crucial determinants (Buijze, 2013).

Critically, the presentation format of information plays a pivotal role in shaping public perceptions. Research by Kleizen et al. (2023) demonstrates that design choices on digital platforms can influence trust and privacy concerns among users. For instance, the presence of a privacy policy may falsely imply data protection measures, thereby manipulating user perceptions (van Ooijen et al., 2019). This suggests that transparency in data governance is not solely about disclosure but also about the context and design in which information is presented.

The changing landscape of e-commerce platforms influenced by data technologies calls for solid data management frameworks to tackle privacy, trust, and ethical concerns. To address these issues, Xiang et al. (2021) promote fostering a data governance environment involving various stakeholders that brings together viewpoints and fosters a well-rounded governance environment. The research suggests multi-agent involvement in managing data on online platforms, emphasising the roles of government oversight, platform responsibility, and user participation (Xiang et al., 2021). This model aims to create a system where each party contributes to and benefits from transparent and ethical data practices (Li, 2023).

According to Li (2023), public involvement in data management is increasing to address information imbalances and prevent ethical risks within platform companies. Online platforms not only accumulate vast and diverse data but also bear the responsibility of safeguarding user privacy rights. However, their prominent position in handling data often leads to data usage practices that cause distrust among consumers and hinder efficient governance efforts.

The ongoing concerns over data privacy and security emphasise the importance of governance structures that focus on user consent and safeguarding data (Jiang et al., 2023). Ethical considerations are pivotal, particularly regarding the responsible use of consumer data. Unauthorised monetisation of personal information can undermine trust and lead to regulatory scrutiny, highlighting the importance of ethical frameworks such as the GDPR (Ducuing, 2024).

These contradictions highlight a critical gap between the promise of data governance and its practical implementation. The challenge lies not only in providing sufficient information but also in ensuring that it facilitates genuine citizen engagement and oversight. Research suggests robust data governance enhances consumer confidence and organisational reputation (Brough et al., 2022). As platform owners navigate these complexities, there is a pressing need for future research to delve deeper into how data policy choices, information quality, and user perceptions intersect to shape effective data governance strategies employed by travel platforms.

2.2.2. Consumer Trust

Trust is a fundamental component of business transactions, significantly influencing consumer decisions and behaviour (Jadil et al., 2022). In the consumer context, trust involves a willingness to accept vulnerability, independent of the ability to control the other party's actions, based on the expectation that the other party will act in accordance with mutually beneficial objectives (Tandon et al., 2020).

Numerous studies highlight how trust impacts customer loyalty, purchase intentions, and brand loyalty. They show that increased consumer trust can enhance enthusiasm for online platforms (Hasan et al., 2021). Trust is a critical factor in the success of e-businesses, particularly in the tourism sector (Xu et al., 2023).

The relationship between trust and user behaviour is complex and varies depending on the context and consumer type. Trust can significantly influence behaviour, especially among newcomers to online shopping compared to those experienced with digital transactions. Vyas et al. (2023) noted that the younger generation quickly adopted technologies, making them proficient at navigating data privacy rules and

managing information sharing. Conversely, despite their expertise in other domains, the older generation may still struggle with digital transactions and privacy issues.

The varying levels of technological literacy highlight the need for platform owners to build trust across all consumer groups, not just the tech-savvy. Users might hesitate to book accommodation online due to ethical and privacy concerns about sharing sensitive personal data with potentially insecure platforms. For example, Airbnb's implementation of privacy protection measures has been shown to increase consumer trust and willingness to engage with the platform (Wang et al., 2020). Trust in platforms is influenced by other factors, such as pricing, service quality, and the platform's oversight capabilities, which impact consumer intentions to use the service (Zhou et al., 2010).

However, relying solely on trust to address privacy and ethical concerns poses challenges. Privacy breaches or unethical behaviours can quickly damage trust and rebuilding it can be a lengthy and challenging process. This underscores the importance of robust data protection strategies and ethical standards.

Users' general perceptions of the degree to which technologies are trustworthy may be antecedents that inform evaluations of specific applications seen by users (van Ooijen et al., 2019). General levels of perceived government trustworthiness have been shown to generate specific forms of policy support. Previous studies have shown that general trust in technology also plays a critical role in trust in and uptake of a specific application of that technology (Matheus et al., 2020).

Trust in online settings is dynamic and evolves based on consumer interactions and experiences with the platform. Continuous monitoring and adaptation of trust-building strategies are essential for maintaining and enhancing consumer trust (Zhou et al., 2010). The significance of privacy protection measures in establishing trust is evident in cases like Airbnb, where transparency and clear communication play crucial roles.

Trust also fosters long-term customer relationships. Research shows that trust positively impacts consumer purchasing intentions. Consumers with high emotional trust are more likely to remain loyal to online platforms they are satisfied with,

increasing purchase intentions (Wu et al., 2023). Trust enhances transactions and post-purchase satisfaction, boosting customer confidence. Exceeding client expectations through ethical principles such as privacy, security, and non-deception, even with mediocre customer service, can build trust and satisfaction (Yang et al., 2019).

Trust is also closely linked to ethical behaviour. OTAs must ensure their platforms are trustworthy and safe, avoiding exploiting client relationships through unethical practices like selling consumers' data, even if it was legally obtained, or implementing inadequate security measures. Trust and loyalty are entangled with the continuity of buying intentions, serving as psychological indicators for predicting repurchase behaviour (Huang et al., 2020).

Effective privacy protection measures must be strongly communicated to consumers (Buhalis et al., 2020). Platform trust is naturally linked with broader data governance issues like privacy and security. Trust reduces perceived risk in online shopping, where digital transaction security is paramount (Buhalis et al., 2020). For instance, internet shoppers' trust negatively impacts the perceived risk of online travel purchasing (Buhalis et al., 2020). Effective data governance practices are vital for nurturing and retaining consumer trust, necessitating further research into the relationship between trust and the data governance environment (Jiang et al., 2023). Trust, however, has not been extensively researched as a mediating factor in users' attitudes toward the data governance environment.

2.2.3. Data Policy

Data policies are foundational frameworks within organisations, crucial for efficiently managing and overseeing data assets. These policies, part of the data governance environment, act as guiding principles, outlining procedures for collecting, processing, using, and safeguarding data among parties such as regulatory agencies, platform owners, and end users (Jiang et al., 2023).

The implications of data regulations extend beyond compliance, profoundly impacting consumer trust and a company's competitive edge. Strong data policies

can build consumer trust and enhance business reputation, encouraging user interaction and loyalty (Brough et al., 2022). Conversely, unclear or ineffective policies can erode trust, reduce user engagement, and invite regulatory scrutiny, underscoring the critical role of data policies in fostering user confidence.

Effective data governance requires clear and robust policies treating data as a valuable organisational asset. Such policies are instrumental in implementing data governance strategies and outlining roles, duties, and rules for managing data. This clarity helps improve efficiency and build trust with all stakeholders, which is crucial for consumers who value their privacy and regulatory authorities monitoring compliance (Jiang et al., 2023). Well-crafted data policies not only ensure regulatory adherence but also promote ethical data handling, reducing risks of data abuse and unauthorised access, thus infusing confidence in data management practices (Jiang et al., 2023).

As mentioned earlier, GDPR imposes strict rules on businesses handling the data of EU citizens, emphasising transparency, accountability, and the importance of user consent (Presthus & Sorum, 2018; van Ooijen & Vrabec, 2019). This regulation sets a global standard for data protection practices, influencing data policies worldwide.

However, challenges in enforcement and interpretation across jurisdictions arise due to differences in legal systems and cultural norms. In the EU there is a strong cultural norm of prioritizing personal privacy and data protection. This norm is deeply embedded in European society and legal traditions, reflecting a historical emphasis on individual rights (Presthus & Sorum, 2018; van Ooijen & Vrabec, 2019). European consumers are generally more aware of and concerned about their privacy, expecting companies to adhere to high standards of data protection.

In contrast, in the United States, there is a stronger emphasis on business innovation and economic growth, often placing consumer privacy concerns as secondary. This cultural orientation influences data regulations such as the CCPA, which, while comprehensive, does not impose the same strict requirements as the GDPR (Cheryl et al., 2022). American consumers may not always demand the same level of transparency or control over their data as European consumers, reflecting a cultural

difference in how privacy is valued and understood. These challenges can weaken the overall effectiveness of regulation and lead to erosion of user trust (Cheryl et al., 2022).

User consent is critical to ethical data handling (Loertscher et al., 2020). Though data regulations detail data usage and collection terms, obtaining user consent often does not meet standards (Brough et al., 2022). Consent mechanisms are designed to establish boundaries on how businesses handle consumer data, offering users a sense of security (Brough et al., 2022). However, users frequently face situations where consent is a prerequisite for service use, raising questions about how informed, in reality, these consents are (Brough et al., 2022).

Recent legal battles involving tech giants like Google and Facebook highlight the complexity of consent issues, emphasising the gap between regulatory aims and real-world practices (Schroepfer, 2018). Privacy notices designed to safeguard users' privacy often fail to bridge the gap between compliance and user understanding. This leads to 'consent fatigue', where users agree to terms without fully understanding the implications due to the substantial volume of information provided in the policy. It can undermine trust in data policies and data governance practices (Wein et al., 2022). Effective data regulations must translate data governance principles into clear, user-friendly information that empowers individuals to make informed decisions about their data.

It is crucial to understand if users of online platforms decide to share data based on privacy awareness or pressure from market-dominant travel providers. Research shows that well-intentioned privacy notices can sometimes boomerang, leading to unpredictable consumer reactions (Brough et al., 2022). Varying levels of consumer awareness and engagement in privacy issues add complexity to policy enforcement, highlighting the need for education and awareness initiatives to promote responsible data practices (Liu et al., 2023). According to Brough et al. (2022), an organisation can enhance its perceived trustworthiness by transparently sharing its data-handling practices with customers.

Implementing data policies depends on an organisation's commitment, resources, and overall culture of compliance (Cheryl et al., 2022). Organisations often encounter obstacles like limited resources or insufficient training in data security measures, which restrain the enforcement of policies and reduce overall data protection effectiveness. To ethically utilise consumer data, businesses must prioritise safeguarding consumers' privacy and creating an environment encouraging information sharing (Liu et al., 2023).

Moreover, age-related differences in privacy awareness present significant challenges. Younger individuals familiar with technology tend to grasp privacy concerns better and understand data privacy regulation and data-gathering methods. In contrast, older individuals often have lower awareness of privacy issues (Vyas et al., 2023).

Younger individuals, such as Gen Z, often use social media platforms and are familiar with privacy settings and data-sharing policies. For example, they may actively manage their privacy settings on Facebook and Instagram to control who can see their posts and personal information. Older individuals might be less aware of privacy implications and they may unknowingly share personal information on websites or fail to adjust privacy settings on their devices, leading to higher risks of data exposure and misuse. This discrepancy underscores the need for age-specific strategies in data governance frameworks, ensuring fairness and inclusivity.

Platform owners often underestimate the importance of effective data policies, resulting in overwhelming and ineffective privacy notices. A recent study by Jiang et al. (2023) emphasised the significance of data policies in data governance, suggesting that raising awareness through impactful privacy notices could positively affect user interactions with platforms.

Data policies are crucial in navigating the complex realm of data governance. By establishing clear rules and ethical guidelines, these policies facilitate responsible data handling, uphold consumer rights, and ensure regulatory compliance, strengthening trust and integrity in data management. Studying the impact of privacy notices on user attitudes towards data governance can provide valuable insights for

consumers, platform owners, and policymakers. This research focuses on assessing the effectiveness of data policies in reducing privacy risks and improving data governance attitudes. Future research might explore the intersection of technology, ethics, and regulatory compliance to create data policies that balance innovation and privacy protection.

2.2.4. Privacy Awareness

In research, privacy awareness refers to consumers' understanding of privacy statements and their general knowledge of privacy issues and policies. This awareness influences consumers' decisions regarding their personal information and understanding of information processing while providing their data on travel platforms (Sah et al., 2023). Travel platforms handle highly sensitive personal data, such as passport details, travel itineraries, and home addresses, which pose significant privacy risks.

For example, booking a vacation through platforms like Expedia or Airbnb often requires users to provide information that reveals when they will be away from home, potentially making them targets for burglary. Additionally, these platforms frequently track users' locations to offer personalized recommendations or logistical support, raising concerns if travel patterns are exposed or misused, as seen with services like Google Maps that collect frequent route data. The timing of users' absences, such as trip dates, further heightens privacy risks by disclosing periods when individuals are away from home. Moreover, the integration of travel platforms with third parties, such as airlines and hotels, increases the risk of data breaches and misuse, as seen when a breach at a partner organization could compromise travelers' personal information. Detailed and user-friendly privacy notices provided by platform providers enable consumers to make informed decisions about their data.

Privacy concerns, in the view of information privacy, often relate to the perceived fairness of data-sharing practices and the degree to which someone can exercise control over data sharing (Matheus et al., 2020). Some people are more privacy-minded and, therefore, more inclined to withhold data (van Ooijen et al., 2019). In the age of AI, privacy takes on a broader meaning. Even if people are unaware that AI is

trained on (often large-scale) datasets, a limited degree of AI literacy may allow them to see that AIs could make potentially intrusive predictions (Matheus et al., 2020). Thus, in modern times, privacy concerns have moved beyond information into the realm of potentially invasive predictions. Privacy concerns may, therefore, play a particularly important role in building efficient data governance strategies that rely strongly on large-scale datasets and advanced data analytics techniques.

Norms and expectations regarding data treatment shape consumer perceptions of privacy respect or violations. Organisations that adhere to privacy expectations gain consumer trust and increase purchase interest, while those that violate these norms face negative consequences, including unfavourable word of mouth (Brough et al., 2022). Studies show that when customers are provided with fair information practices, privacy concerns diminish as a factor influencing their willingness to share personal information (Sah et al., 2023).

A Pew Research survey revealed that while a majority of Americans (78%) believe they can make choices about their online privacy, many (61%) doubt even the efficacy of their actions (McClain et al., 2023). Efficacy in this context involves not only the ability of users to make informed decisions about their online privacy but also the effectiveness of those decisions in actually protecting their personal information, which depends significantly on the transparency and trustworthiness of companies in managing data (McClain et al., 2023). Those who understand the risks of sharing information are more cautious, but much depends on companies' transparency and trustworthiness in data management.

Ethical issues arise as soon as information is shared (Tseng et al., 2022). Individuals who are well-informed about privacy issues and value privacy are more concerned about safeguarding their information (Ioannou et al., 2020). Implementing systems prioritising privacy protection and upholding security standards can ease consumer worries (Shirazi et al., 2021). Media coverage of data breaches, such as the Marriott incident affecting 500 million customers and personal accounts of travel scams on social media, shape privacy awareness in the travel sector. Hence, individuals with heightened awareness are more likely to exhibit privacy concerns when interacting with online travel service providers.

However, media influence on privacy awareness has a dual effect. While it can enhance awareness, it may also promote uncertainty, provoking individuals to distance themselves from service providers (Tseng et al., 2022). This fear-driven awareness might lead to excessive caution or distrust, potentially diverting innovation and the beneficial use of data.

Recognising the importance of privacy awareness is essential for empowering consumers and upholding ethical data practices. However, there are significant areas that require a more profound understanding. Studies indicate that older individuals, those with less education, and people with limited digital skills struggle to grasp complex privacy policies, making them more exposed to privacy risks (Vyas et al., 2023). This digital divide raises questions about the fairness of data protection measures and the accessibility of privacy information.

Sah et al. (2023) demonstrated that providing privacy notices on websites significantly enhances privacy awareness, reduces privacy concerns, and increases trust in service providers. Brough et al. (2022) suggested that privacy notices with benevolence cues (e.g., "*we care about you*") may foster consumer trust more effectively than those relying solely on knowledge cues (e.g., "*we use 256-bit encryption*"). However, if not managed transparently, such strategies could create a false sense of security, potentially deceiving consumers.

At the same time, field research indicates that overly protective privacy statements and those lacking objective information about data activities can erode consumer trust and reduce engagement, leading to decreased sales. Prominent privacy notices on websites have been associated with lower enrolment rates, suggesting that consumer perceptions of privacy safeguards are crucial in facilitating user engagement (Ioannou et al., 2020).

Therefore, it is vital for end users, regulators, and platform owners to raise privacy awareness actively. This involves sharing information, educating users on managing privacy settings, and understanding the consequences of data-sharing decisions.

Ongoing efforts are necessary to keep pace with technological advancements and evolving data practices.

Ethical issues related to data usage extend beyond privacy concerns and impact society. Issues such as data bias, surveillance, and the treatment of information as a commodity necessitate a comprehensive approach to understanding privacy. Consumers must know their rights and the broader implications of data practices.

Enhancing privacy awareness involves making privacy information more accessible, balancing trust and transparency, and using media responsibly. Ethical issues in the digital domain should be a central focus, and understanding how platforms handle these concerns is essential for building and maintaining user trust. Following earlier research, this study uses consumers' understanding of privacy practices and issues—privacy awareness—as a quantitative variable to assess its impact on the data governance environment.

Consumers' understanding of privacy significantly influences their data-sharing behaviours. Well-informed consumers tend to trust organisations that are transparent and respect their privacy rights (Brough et al., 2022). Fostering privacy awareness requires clear communication of data management practices and active education about users' rights and the risks of data sharing (Sah et al., 2023). Media coverage of data breaches and privacy infringements further promotes consumer awareness, emphasising the importance of ethical data handling (Tseng et al., 2022).

2.2.5. Ethical Concerns

Platform owners continuously innovate digital technology to integrate businesses, customers, and service providers into a seamless system offering convenient services (Xu et al., 2023; Broekhuizen et al., 2021). However, this integration introduces various ethical challenges, particularly in data governance. Ethical data governance involves ensuring that platforms engage with users safely, honestly, fairly, and confidentially, protecting their best interests (Nadeem et al., 2020).

A significant ethical concern is the issue of uninformed consent. Users often face complex privacy policies that are difficult to comprehend, leading to situations where consent is given without a full understanding of the implications (Hanlon et al., 2023). Ideally, informed consent would involve clear explanations of data collection practices, associated risks, and expected outcomes. However, in practice, privacy notices are often reduced to a simple choice: accept all terms or refrain from using the service. For instance, Facebook's misuse of user data highlights how inadequate and unclear privacy terms can lead to significant ethical breaches and user mistrust (Schroepfer, 2018).

As organisations accumulate vast amounts of data, ethical concerns about data use increasingly influence consumer perceptions. Privacy breaches can severely erode trust and loyalty. The 2022 Airbnb scandal, where inadequate security measures led to the misuse of customer information, underscores the critical need for robust data management and control (Wang et al., 2022). Such events highlight the limitations of current data management practices and their impact on platform value and user motivation (Ozdemir et al., 2020).

The growing prevalence of online privacy breaches has heightened consumer concerns about online privacy, affecting their willingness to use websites or apps (Hanlon et al., 2023). Research indicates that individuals with high ethical concerns scrutinise privacy policies more closely, moderating the relationship between these policies and their feelings of vulnerability and trust in corporate intentions (Guo et al., 2022).

Privacy policies have a significant impact on users with high ethical concerns, fostering online trust. Effective privacy protection technologies can mitigate perceived privacy invasions and risks, making organisations that prioritise user data protection appear more trustworthy (Guo et al., 2022). Conversely, users with lower privacy concerns may not place as much importance on transparency and respectfulness in data handling, even if a website has a clear and open privacy policy.

Ethics in data management and policy creation involves balancing privacy rights with leveraging data insights. Ethical considerations include ensuring informed consent, fairness in data use, and avoiding the commodification of information. Organisations must address challenges such as data bias, surveillance, and the broader societal impacts of data practices. Integrating ethical values into data governance strategies is essential for fostering trust and responsibility, which are crucial for sustainable, data-driven innovation.

2.2.6. Data Governance Attitude

The relationship between data governance and users' attitudes towards transparency and trust is fraught with complexity. While digital governance promises increased transparency (Matheus & Janssen, 2020; Bertot et al., 2010), significant challenges persist in translating these promises into genuine improvements in users' trust and accountability. The traditional view of transparency, which allows users to "*see through the windows*" (Meijer, 2009), is often insufficient in a digital context. Instead, information's nature, quality, and presentation are crucial in shaping user attitudes.

Buijze (2013) provides a critical perspective by distinguishing between the mere availability of information and its actual utility in promoting transparency. Information must empower consumers and facilitate scrutiny of platform actions. However, excessive or poorly presented information can lead to confusion rather than clarity (Buijze, 2013). This aligns with findings by Brandimarte et al. (2013) and Van Ooijen & Vrabec (2019), which suggest that the design and context of information disclosure significantly influence user perceptions. For instance, the presence of privacy notices can give users a false sense of security, even when such policies do not guarantee stringent data protection.

Moreover, the complexity of governmental data processes presents another layer of difficulty. O'Hara (2012) notes that these processes' technical and expansive nature makes it challenging to be genuinely transparent. The cognitive load on users to understand such complex information often leads to misperceptions and decreased trust. This is further complicated by research showing that different presentation

formats of information can lead to varying levels of trust and privacy concerns among users (Brandimarte et al., 2013; Van Ooijen & Vrabec, 2019).

Despite these challenges, some literature remains optimistic about the potential for transparency to build trust. End-user perspectives on data governance are crucial in shaping sustainable strategies that enhance engagement and retention (Jiang et al., 2023). Understanding travellers' attitudes and concerns about data privacy is essential for designing effective governance frameworks. Successful data management balances maximising data utility with maintaining standards that strengthen consumer trust (Jiang et al., 2023). However, these studies often focus on the content of what is communicated rather than the potential for misinterpretation or manipulation inherent in how information is presented (Brandimarte et al., 2013; Alon-Barkat, 2020).

The tension between providing meaningful transparency and the potential for information overload or manipulation suggests a nuanced landscape of user attitudes. While clear and relevant information can foster trust and engagement, the risk of misperception and reduced transparency due to poor presentation or excessive complexity remains high. This underscores the need for a careful balance in data governance strategies, ensuring that information is not only available but also enhances users' understanding and trust.

In summary, information quality, presentation, and perceived control shape user attitudes towards data governance and transparency. Understanding and addressing these nuances will be crucial in fostering genuine trust and accountability as governments continue implementing digital transparency initiatives.

2.3. Conclusion of the literature

This chapter has explored the background literature to understand the essential components shaping the foundation of this dissertation subject—the data governance attitude. The primary objective of this study is to explore how the data governance environment affects users' perceptions of online travel platforms. Additionally, it seeks to examine the value-action gap by analyzing whether factors

such as consumer trust, privacy awareness, and ethical considerations influence these perceptions.

Based on the literature reviewed, it is evident that numerous studies have explored how elements like privacy awareness and ethical concerns influence consumer trust and behavior within online travel services. Theoretical frameworks such as the S-O-R theory and empirical studies on consumer trust in e-commerce indicate that transparent and ethically sound data management practices can significantly bolster consumer trust, thereby affecting their inclination to interact with travel services.

While extensive studies have been conducted on these subjects, there is a lack of research focusing on the correlation between data governance, privacy awareness, and ethical considerations within online travel platforms. Therefore, gaining insight into how these factors impact consumer trust and behavior is crucial. This understanding empowers businesses to develop strategies that address consumer concerns, bolstering trust and fostering platform participation.

Future research could delve into the effectiveness of different types of privacy notices or the role of cultural differences in consumer trust and privacy concerns in online travel services. Balancing privacy and ethical data practices while mitigating consumer anxiety will be crucial for online travel platforms aiming to enhance trust and engagement. Thus, understanding the factors that drive and influence consumer perceptions and behaviors within online travel services is essential.

Part III: Research Question

3.1. Research rationale

The overall aim of this study is to investigate the influence of the data governance environment on users' perceptions of online travel platforms. Despite the growing importance of data governance in digital services, there is limited research specifically examining its impact on user attitudes within the context of online travel platforms. This study addresses this gap by focusing on consumer trust, privacy awareness, and ethical considerations.

3.2. Research question

This research will respond to the following questions:

RQ1: *Whether data governance environment of online travel platforms affect users' attitudes?*

RQ2: *What is the effect of the components - data policy, privacy awareness, and ethical concerns on consumer trust?*

RQ3: *To what extent can consumer trust influence users' attitudes towards data governance of online travel platforms?*

3.3. Research hypotheses

By the constructs and relationships of the model proposed by Xu et al. (2023), Sah et al. (2023), Jiang et al. (2023), and Ioannou et al. (2020), as well as the previous evidence, the following hypotheses were formulated:
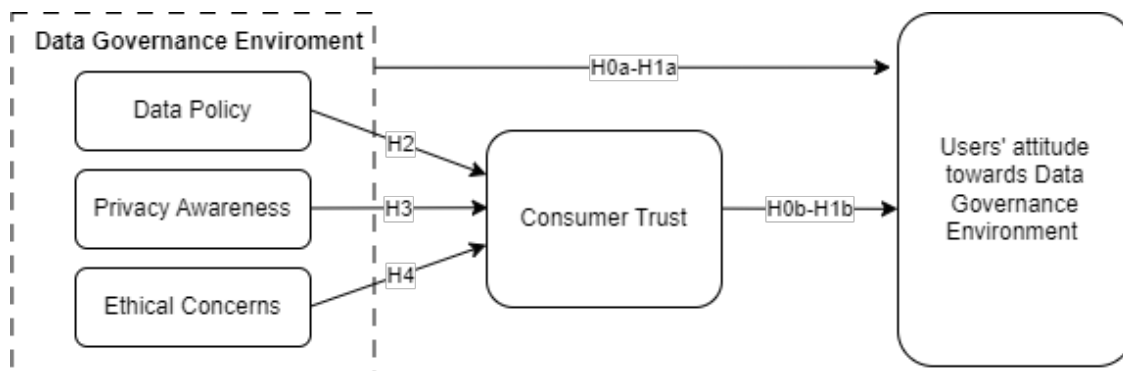
Figure 1 – Research Model.

Hypotheses for RQ1 - *Whether data governance environment of online travel platforms affect users' attitudes?*

- H0-a: There is no significant relationship between the data governance environment of online travel platforms and users' attitudes.
- H1-a: The data governance environment of online travel platforms significantly influences users' attitudes.

Hypotheses for RQ2 - *What is the effect of the components - data policy, privacy awareness, and ethical concerns on consumer trust?*

- H2: Data policy positively influences consumer trust.
- H3: Privacy awareness positively influences consumer trust.
- H4: Ethical concerns positively influence consumer trust.

Hypotheses for RQ3 -*To what extent can consumer trust influence users' attitudes towards data governance of online travel platforms?*

- H0-b: There is no significant relationship between consumer trust and users' attitudes towards data governance of online travel platforms.
- H1-b: Consumer trust significantly influences users' attitudes towards data governance of online travel platforms.

3.4. Research objectives

To accomplish the aim of this study, the following objectives are set:

- Investigate the impact of the data governance environment on users' attitudes towards online travel platforms.
- Analyze how data policy, privacy awareness, and ethical concerns influence consumer trust.
- Determine the extent to which consumer trust shapes users' attitudes towards data governance on online travel platforms.

To the best of the author's knowledge, this is the first study focusing on the impact of the data governance environment on users' perceptions in the context of online travel platforms in Ireland.

In summary, this chapter has clearly defined the objectives and identified the research hypotheses and questions, encompassing both the null and alternative hypotheses. The next chapter will provide a rationale for the selected methodology for data collection.

Part IV: Research Methodology

4.1. Introduction

This chapter outlines the research methodology for investigating how data governance environments influence user attitudes towards online travel platforms. The methodology addresses the research questions quantitatively, aligning with philosophical assumptions about objectivity and measurement. This approach enables a systematic exploration of data governance and its impacts on user perceptions.

4.2. Research philosophy

The study adopts a pluralistic ontological stance, recognizing that reality is subjective and shaped by individual experiences (Otoo, 2020). This perspective is crucial for understanding varied user attitudes towards data governance, as different users perceive and experience data governance differently based on their backgrounds and cultural contexts (Creswell et al., 2018). This ontological stance justifies using quantitative methods, such as structured surveys, to capture these perspectives (Otoo, 2020).

Epistemologically, the study emphasizes proximity to participants to capture subjective experiences (Al-Ababneh, 2020). An online survey allows for collecting detailed, personal evidence reflecting participants' views and experiences. This is essential for understanding complex phenomena (Waziri et al., 2023). By using this method research aims to gather empirical data that accurately reflect users' attitudes and experiences with data governance (Al-Ababneh, 2020).

Regarding axiology, the study seeks to minimize subjective biases by employing quantitative methods (Rosida, 2023). This approach focuses on objective measurements of data governance (Yilmaz, 2013). Random sampling, survey research, and correlational analysis ensure a comprehensive and unbiased examination of the research questions, producing generalizable findings that reflect the broader user population's attitudes towards data governance.

The chosen quantitative methodology aligns with the philosophical assumptions guiding the study. Quantitative research uses statistically measurable tools to develop explanations about the phenomena under investigation (Yadav, 2022). This approach involves formulating research questions and hypotheses and analyzing results to support or reject these hypotheses. Emphasizing reliability and validity ensures the consistency and accuracy of the research, minimizing bias and enhancing objectivity (Otoo, 2020). By adopting a quantitative approach, this study systematically investigates the impact of data governance on user perceptions. The use of surveys and statistical analysis methods is justified by the need to obtain reliable results that can be applied across different contexts within the digital travel industry (Yadav, 2022). This systematic approach builds on previous research that underscores the importance of objective and measurable data in understanding user attitudes (Rosida, 2023).

The study's philosophical approach and methodology are consistent with previous research. For instance, research by Jiang et al. (2023) and Xu et al. (2023) highlights the significance of using validated measurement scales and quantitative methods to assess perceptions and trust related to data governance. The alignment with these established approaches reinforces the study's credibility and supports using similar methodologies to address the research questions effectively.

However, while the study's reliance on quantitative methods aims to minimize subjective biases, it is essential to acknowledge that biases can still emerge from survey design and interpretation; therefore, author of the thesis acknowledge limitation of relying only on quantitative methodology. Incorporating qualitative methods could offer a more nuanced understanding by capturing the depth and complexity of individual experiences that structured surveys may overlook.

4.3. Research design

The research design serves as the backbone of the study, guiding data collection, sample selection, and analysis. For this thesis, a quantitative research design was chosen for its capacity to objectively test hypotheses and measure variables across a representative sample.

4.3.1. Research design justification

Quantitative research has an ability to provide numerical data that can be statistically analyzed to identify patterns and relationships. This choice is supported by Duckett et al. (2021), who highlight the advantage of quantitative methods in testing hypotheses and obtaining evidence-based insights. Alternatives like qualitative methods were deemed less suitable due to their subjectivity and limited capacity to generalize findings across a large user base (Harrison, 2020).

4.3.2. Research sample

The study focuses on users of online travel platforms in Ireland aged 18 and older, targeting major platforms such as Booking.com, Airbnb.com, Expedia, and Kayak.ie. This selection is based on legal and ethical considerations, ensuring informed consent and relevance to the target user base (Bryman & Bell, 2015).

Furthermore, Ireland's prominence in international tourism (International Tourism Highlights, 2019) justifies its inclusion as a representative context for broader European insights. The choice of this demographic ensures that participants have experience with the platforms and can provide informed feedback.

4.3.3. Sample size

The study achieved a sample size of 183 individuals, with 133 valid responses analyzed. A total of 50 responses were excluded for the following reasons: 11 participants were under 18, one response had uniform answers, and 38 were completed in under 4 minutes which suggested insufficient engagement. The sample size was determined using the GPower software to ensure sufficient statistical power to detect significant effects. This approach enhances confidence in the results and supports the generalizability of the findings (GPower, 2023).

The decision to use this sample size was based on balancing practical data collection constraints and the need for reliable statistical analysis. By ensuring an adequate number of responses, the study maximized the accuracy and validity of the conclusions drawn.

4.3.4. Data collection

Data was collected through an online structured questionnaire using Jotform (Free Online Form Builder & Form Creator | Jotform, n.d.). This method allows efficient data collection and minimizes response bias. Alternatives like face-to-face interviews were considered but were not feasible due to resource constraints and potential biases (Wadood et al. 2021). The questionnaire included a screening question ("*Have you interacted with travel platforms recently?*") to ensure participants' relevance, aligning with the focus on recent interactions with travel platforms.

The survey was distributed electronically via LinkedIn, Facebook, and personal networks, broadening the reach and increasing response rates while mitigating biases associated with traditional data collection methods.

4.3.5. Pilot study

A pilot study was conducted to refine the structure of the questionnaire, ensuring clarity and reliability. This step was crucial to identify and address potential issues before the main data collection phase, enhancing the accuracy of the instrument (Wadood et al. 2021).

4.3.6. Research instrument

The study is quantitative, and the questionnaire is the principal tool for collecting participant data. The study utilized validated measurement scales. These scales were chosen due to their established reliability and validity in similar research contexts. Alternative scales were considered but were either less validated or irrelevant to the specific investigated constructs.

The questionnaire is structured into five sections. Each section based on the scale mentioned below. The questionnaire begins with an introduction that outlines the research objectives and emphasizes the voluntary nature of participants' involvement. The following section collects demographic data to enable a detailed analysis of responses based on participant characteristics. It includes questions on

age, gender, education, and preferred travel platforms. This segment is essential for understanding the sample's composition and allows for statistical analysis of different demographic groups, as Vogt et al. (2011) outlined.

The following section evaluates participants' perceptions of data policies on online travel platforms. It aims to understand how well users grasp the transparency and adequacy of data retention and usage practices. This segment is informed by the study conducted by Jiang et al. (2023), which explores how users perceive data policies. The following section assesses participants' awareness of privacy issues related to their interactions with online travel platforms. Ioannou et al. (2020), who explored the relationship between privacy awareness and the willingness to share private information, influenced this part.

The following section investigates participants' ethical concerns regarding their data handling and their level of trust in online travel platforms. It combines insights from Xu et al. (2023), focusing on the ethical dimensions of data handling and the trust users place in these platforms. The final section explores users' attitudes towards data governance practices on online travel platforms and assesses opinions on their effectiveness. This section is based on the Data Governance Attitude Scale proposed by Jiang et al. (2023).

The order of sections was planned and organized to ensure that prior questions did not influence subsequent ones, as ethical concerns can influence the respondents' answers about privacy awareness.

The participants were able to share the internet websites they consulted to choose their last holidays by answering the question: "*In what platforms or websites did you search for information to choose your last holidays?*". This question allows author to catch any limitations due to the generalization of the result chosen for this study platform - Booking.com, Airbnb.com, Expedia.ie, and Kayak.ie.

4.4. Data analysis

This section provides an overview of the statistical methods and guidelines used to analyze the collected data, which is essential for deriving meaningful research findings. As defined by Russell (2014), quantitative data analysis involves the systematic use of statistical techniques to evaluate and interpret numerical data. These methods help identify associations within the dataset and assess potential correlations between variables.

There are two primary types of data research analysis: primary and secondary. According to Russell (2014), primary research involves the researcher directly collecting data from individuals. This method allows the researcher to gather information tailored to their specific needs and maintain control over its quality. In contrast, secondary research relies on data collected by another party. It serves as a valuable foundation for primary research by providing a broader context for understanding particular social phenomena.

In this study, data from primary sources were analyzed. After collecting the data from the sample, the researcher employed IBM SPSS Statistics (SPSS Software | IBM, n.d.) for the data analysis. This software facilitated the statistical analysis, enabling the researcher to visualize frequency distributions and examine the correlation between variables through both descriptive and inferential statistics.

Prior to analysis, the dataset was reviewed to identify and exclude outliers using the "outlier labelling rule" (Hoaglin et al., 1987). Extreme values were removed to prevent affecting the average value and misrepresenting the central tendency, thus avoiding misinterpretation of the data.

Two key factors—reliability and validity—were prioritized to enhance the study's quality during data collection and analysis. Heale et al. (2015) describe reliability as the consistency of results produced by the research instrument, while validity refers to the accurate measurement of variables. To assess the reliability of the measurement scales, this study utilized Cronbach's α coefficient, achieving a value of 0.800, which indicates acceptable reliability. Validity was ensured by using

established and validated measurement scales to accurately represent the constructs under investigation.

This study collected responses from 183 participants. However, after excluding outliers, 133 results were included in the analysis. This topic will be discussed in more detail in the next chapter.

Guideline for data analysis	
1	Import the collected questionnaire data into SPSS software
2	Assign numerical codes to each response option in the questionnaire to facilitate statistical analysis
3	Develop a comprehensive data analysis plan that includes selecting the most suitable statistical tests based on the research questions
4	Conduct univariate analysis to summarize and describe individual variables. This includes generating frequency distributions and calculating measures of central tendency (mean, median, mode)
5	Perform bivariate analysis to explore relationships between pairs of variables. Use scatter plots and correlation coefficients to visualize and assess these relationships
6	Perform the statistical test to test the hypothesis of this dissertation (e.g. Linear regression)

Table 1 – Guideline for data analysis

The guideline for data analysis utilized by the researcher is outlined in Table 2 (adapted from Schulz, 2012). The survey included 25 statements, each with a 5-point Likert scale to gauge the level of agreement. The table below specifies the values assigned to each response option:

5-point Likert scale	
Value	Agreement
1	Strongly Agree
2	Agree
3	Neutral
4	Disagree
5	Strongly Disagree

Table 2 – Data coding (5-point Likert scale)

It's important to assign values carefully to ensure each response is weighted accurately. The researcher had to understand the meaning of each statement before assigning the values.

To test the hypothesis of this dissertation, the author chose to analyze the dataset using a Linear Regression model to identify potential relationships among various components. Specifically, the study examined the correlation between the data governance environment and users' attitudes. The independent variables included data policy, privacy awareness, and ethical concerns, collectively representing the data governance environment. The dependent variable was users' attitudes toward data governance on online travel platforms.

Additionally, the relationship between consumer trust as a mediating variable and users' attitudes towards data governance was analyzed. The study further explored the impact of individual components—data policy, privacy awareness, and ethical concerns—on the mediating variable, consumer trust.

In summary, analyzing linear regression and the frequency distribution of various variables allowed the researcher to explore the dissertation topic more deeply. The following chapter will provide a detailed overview of the findings.

4.5.   Limitations

This section offers a general overview and highlights the limitations of the research that could impact the final results. In other words, it examines the current situation and provides a comprehensive perspective on the research while acknowledging its potential constraints.

First, the study's **geographic limitation** to Ireland significantly limits its generalizability. Ireland, while representative of certain Western European contexts, does not capture the diverse perspectives across different cultural and regulatory environments. This narrow geographical focus suggests that the findings may not be

universally applicable and underscores the necessity for research in other regions to compare and validate results.

Second, the research's exclusive focus on **specific online travel platforms** such as Booking.com, Airbnb.com, Expedia.ie, and Kayak.ie is a major limitation. This narrow scope likely overlooks other influential platforms and services. Future studies should broaden their scope to include a wider variety of online travel platforms to offer a more comprehensive understanding of user attitudes.

Third, the study fails to consider the **impact of the technology used** to access online travel platforms. The type of device—whether a personal computer or a mobile device—and features like biometric authentication could significantly influence users' perceptions of privacy and data security. Incorporating device-related variables in future research could provide deeper insights into how technology affects user attitudes.

Fourth, while the quantitative approach employed in the study allows for generalizable results, it falls short in capturing the nuanced experiences and attitudes of users. Integrating **qualitative methods**, such as in-depth interviews or focus groups, in future research could yield more detailed insights into users' personal experiences and attitudes.

By acknowledging these critical limitations, this study provides a transparent account of its scope and identifies potential areas for further exploration. Addressing these limitations in future research will help refine understanding of data governance's impact on user attitudes and contribute to more generalizable findings.

4.6. Ethical considerations

This section outlines the ethical guidelines followed to minimize potential issues during and after the study. The aim was to ensure the protection and respect of participants and to address ethical considerations. Below are the key elements that constituted the author's ethical guidelines:

The research included a **disclosure statement** in the initial part of the questionnaire, explaining how participants' data would be managed and the duration of data storage. This measure was designed to uphold participants' privacy and ensure confidentiality.

The study did not involve **vulnerable populations or investigate highly sensitive topics**.

Participants were informed that they would have the opportunity to **receive feedback** on the study's findings by emailing author. This was communicated in the first section of the questionnaire to highlight the potential benefits of their participation.

Prior to participating, respondents were required to review and agree to essential information about the research, as recommended by Connelly (2014). This process aimed to ensure participants were fully **informed** before providing their consent.

These ethical considerations were integrated into the initial part of the questionnaire, ensuring that respondents were aware of the research's aims, data collection procedures, and privacy protections.

Part V: Findings and Analysis

This chapter presents an analysis of the research results, focusing on the relationship between data governance environments on online travel platforms and users' attitudes. The findings are organized by key aspects identified in the research questions: privacy awareness, data policy, ethical concerns, consumer trust, and data governance attitudes. The chapter concludes with hypothesis testing.

Research Questions:

1. **RQ1:** *Whether data governance environment of online travel platforms affect users' attitudes?*
2. **RQ2** *To what extent can consumer trust influence users' attitudes towards data governance of online travel platforms?*
3. **RQ3:** *What is the effect of the components - data policy, privacy awareness, and ethical concerns on consumer trust?*

While the primary focus was on these research questions, additional relevant correlations and frequencies were examined to provide a comprehensive analysis.

5.1. Demographic characteristics of the respondents

A total of 183 participants responded, but only 133 responses were included in the analysis as it was necessary to exclude a number of responses for maintaining the integrity of the survey results. A total of 50 responses were excluded for the following reasons: 11 participants were under 18, one response had uniform answers, and 38 were completed in under 4 minutes which suggested insufficient engagement.

Variable	Sub-division	Frequency	Percent (%)
Gender	Female	83	62.4
	Male	42	31.6
	Non-binary	1	0.8
	Prefer not to say	7	5.3
Age (years)	18-24	49	36.8
	25-34	48	36.1
	35-44	17	12.8

	45-44	17	12.8
	55-64	1	0.8
	65+	1	0.8
Education	High / Secondary school	14	10.5
	Bachelor's degree	31	23.3
	Master's degree	39	29.3
	PhD	6	4.5
	Others	9	6.8
	Total	*133*	*100*

Table 3 - Demographic description of respondents

Table 3 and **Figure 2** summarises the demographic characteristics of the sample. The data reveals a predominantly female respondent pool (62.4%), with males constituting 31.6%, and minimal representation from non-binary individuals (0.8%) and those preferring not to disclose their gender (5.3%).
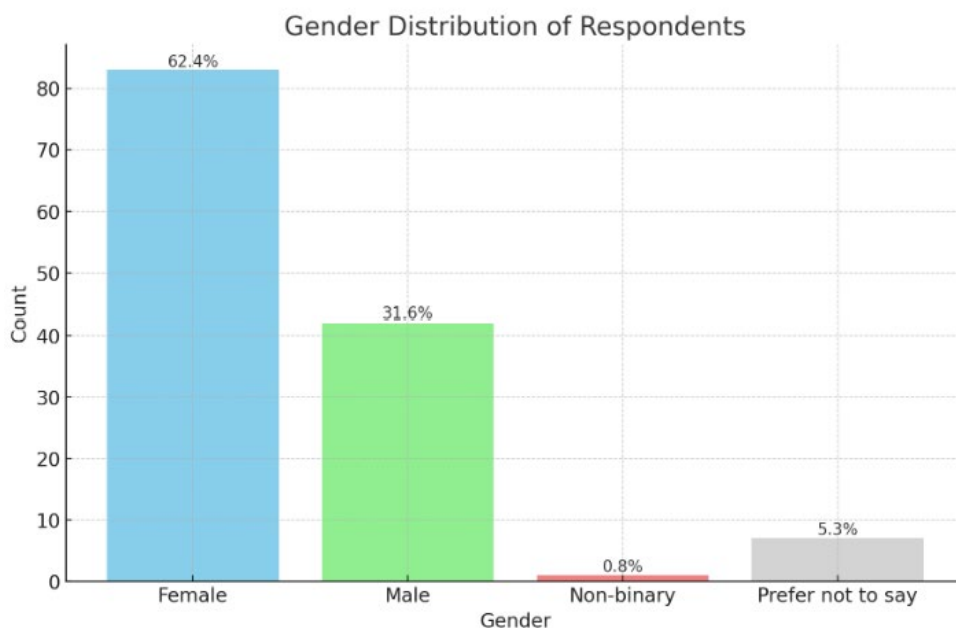

Figure 2 – Gender distribution of respondents

The age distribution indicates a younger demographic, with 73% of respondents aged between 18 and 34 years. The older age groups (55-64 and 65+) are minimally

represented, each at 0.8%.up 0.8% of the respondents. This age distribution suggests a predominance of younger adults in the survey.
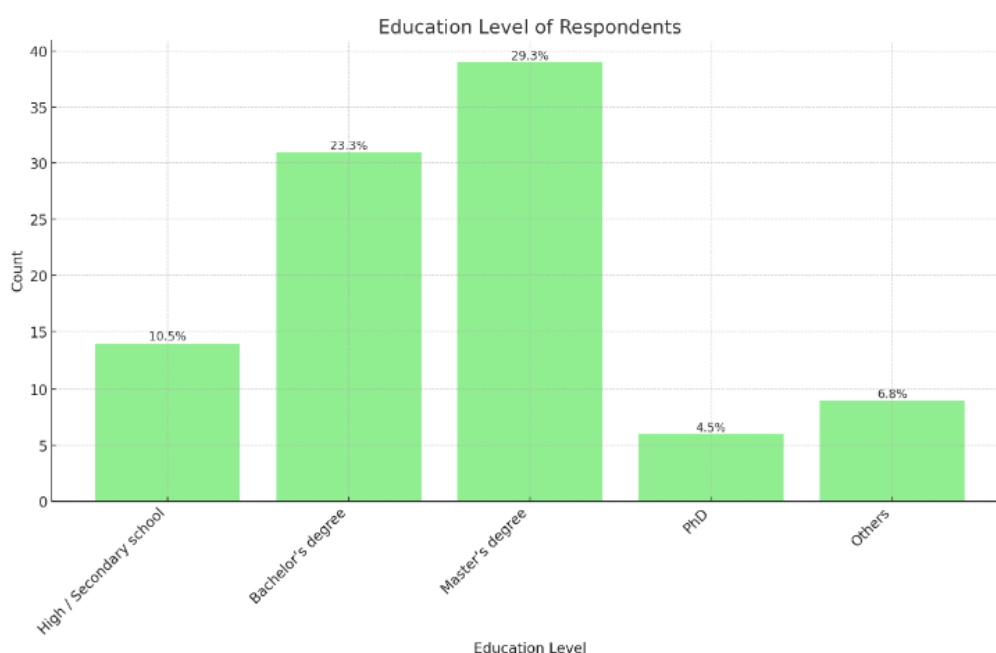
Figure 3 – Education level of respondents

Regarding education, **Figure 3** is showing that a significant portion of respondents hold advanced degrees, with 29.3% having a Master's and 23.3% a Bachelor's degree. This suggests a highly educated sample, which may influence perceptions of privacy and data governance due to their informed understanding of these issues. Previous studies suggest that education levels influence individual privacy perception because those with high levels of education have more knowledge about privacy issues, consequently increasing concern about data governance (Vyas et al., 2023).

Variable	Sub-division	Frequency	Percent (%)
Platform	Airbnb: https://www.airbnb.com/	53	39.8
	Booking.com: https://www.booking.com/	53	39.8
	Expedia: https://www.expedia.ie/	15	11.3
	Hotels.com: https://www.hotels.com/	15	11.3
	Kayak: https://www.kayak.ie/	11	8.3
	TripAdvisor: https://www.tripadvisor.com/	23	17.3

Other	17	12.8
Total	*133*	*100*

Table 4 – Distribution of respondents across the online platform

Table 4 presents a distribution of respondents' preferences across various online booking platforms. Airbnb and Booking.com are the most popular platforms, each used by 39.8% of respondents. Their high usage suggests these platforms are preferred for their user-friendly interfaces and established reputations.

The "Other" category, with 12.8% of respondents, shows that a notable portion of users prefer alternative or niche booking options. This diversity suggests that while major platforms dominate, there is a significant market for varied and region-specific services. This distribution highlights the competitive and evolving nature of the online booking industry.

5.2. Privacy Awareness overview

The frequency distribution data reveals varied levels of awareness and engagement among respondents concerning privacy issues. A substantial portion of participants, 76% (combining "Strongly agree" and "Agree"), acknowledges awareness of privacy issues and practices in society, with a mean score of 2.11 indicating a generally high level of awareness.

However, there is a noticeable decline in engagement with privacy-related news and developments. Only 39.8% of respondents express agreement with following privacy news, reflected in a mean score of 2.83 (**Table 5**). Similarly, 43.6% of participants keep themselves updated on privacy solutions by companies and the government, with a mean score of 2.81 (**Table 5**).

These findings suggest a disparity between general awareness and active engagement with ongoing privacy issues.

Statistics		
Statement	Mean	N
I am aware of the privacy issues and practices in our society.	2.11	133

I follow the news and developments about privacy issues and privacy violations.	2.83	133
I keep myself updated about privacy issues and solutions that companies and the government employ to ensure privacy.	2.81	133

Table 5 – Statistics (privacy awareness)

Descriptive statistics further support these observations, showing that while awareness of privacy issues is relatively high, active engagement and up-to-date knowledge about privacy solutions are less prevalent.

The standard deviations indicate some variability in responses, particularly regarding news following and updates on privacy solutions, suggesting differing levels of engagement among respondents. These findings highlight a general awareness of privacy issues but reveal a gap in continuous, active engagement with privacy developments and solutions.

5.3. Data Policy overview

The frequency and descriptive statistics reveal varied perceptions regarding government policies on data retention and security.

Responses indicate a mixed view on the suitability of the government's data retention period, with a mean score of 2.65. While 43.6% of respondents agree that the retention period is suitable, a significant proportion remains neutral (39.1%), suggesting a need for further investigation due to uncertainty or lack of strong opinion on this aspect. Similarly, while 54.9% agree that the government has implemented effective rules and regulations to protect data security, there is a notable neutral stance from 15.8% of participants and a considerable portion expressing disagreement (20.3%).

Statistics		
Statement	Mean	N
The data retention period mandated by the government is suitable.	2.65	133
The government has implemented rules and regulations to protect data security.	2.49	133
The government has taken severe disciplinary measures against data leakage.	3.05	133

The government has adopted other restrictive practices related to the data policy.	2.74	133
I believe that Ireland's legal environment is conducive to the development of network-based businesses.	2.55	133

Table 6 – Statistics (data policy)

Responses regarding government actions against data leakage and restrictive data policies are more varied as per **Table 6**. With a mean score of 3.05, perceptions of severe disciplinary measures against data leakage show greater neutrality and disagreement among respondents. Furthermore, while 36.8% agree that restrictive data practices have been adopted, 39.8% remain neutral.

The mean score for the belief in Ireland's conducive legal environment for network-based businesses is 2.55, with a significant percentage of respondents (49.6%) expressing neutrality. This large neutral response underscores the uncertainty and lack of consensus among the respondents about the effectiveness of data governance measures and their impact on business development in Ireland.

5.4. Ethical Concerns overview

The survey results provide a nuanced picture of user perceptions regarding online travel platforms and their practices. Most respondents express scepticism about how these platforms handle personal information and communicate their policies. For instance, only 44.4% feel that the platforms clearly explain the use of personal information, and 50.4% believe that the privacy policy terms are clearly shown. This indicates that a significant portion of users are uncertain or dissatisfied with the transparency of these platforms as per **Table 7**.

Further analysis reveals that respondents are generally cautious about online travel platforms' ethics and business practices. With a mean score of 3.20, there is a moderate perception of high business ethics, but only 22.6% strongly agree. Similarly, the perception that platforms use inexperienced consumers to drive consumption is met with mixed responses, as evidenced by a mean score of 3.29.

This suggests concerns about manipulative practices, though many respondents remain neutral or disagree with this statement. These findings highlight areas where online travel platforms could improve transparency and ethical practices to enhance user trust.

Statistics		
Statement	Mean	N
The online travel platform clearly explained to us how to use the personal information we provided.	2.88	133
The online travel platform clearly shows us the terms of the privacy policy.	2.67	133
The online travel platform has proved to us that it complies with relevant regulations on online data protection.	2.93	133
The online travel platform exaggerates the advantages and characteristics of its services and products.	2.60	133
The online travel platform tries to persuade us to buy things or services we don't want.	2.52	133
The values displayed by the online travel platform are consistent.	2.95	133
The online travel platform shows high business ethics in all transactions.	3.20	133
The online travel platform will not use inexperienced consumers to make them consume.	3.29	133

Table 7 – Statistics (ethical concerns)

5.5. Consumer Trust overview

Table 8 shows the survey results comprehensively view users' perceptions of online travel platforms, revealing varying satisfaction levels. A substantial 62.4% of respondents believe these platforms can improve transaction efficiency, as reflected in the relatively higher mean score of 2.40 for this statement. This suggests a positive perception of operational efficiency. However, confidence in the platforms' ability to protect consumer rights is somewhat lower, with 58.6% agreeing or strongly agreeing and a mean score of 2.50 indicating moderate concern. The lowest mean score of 2.29 reflects a lack of confidence in the platforms' ability to provide high-quality products and services, highlighting significant scepticism about the overall service quality.

Conversely, the platforms' performance in handling issues is viewed more favourably, with a mean score of 2.97 for their efficiency and professionalism in problem resolution. This higher score indicates that while users are concerned about the platforms' resource capabilities and overall service quality, they appreciate their effectiveness in addressing and resolving problems. The mixed feelings towards product and service quality, with 44.4% rating it as high quality and 15% expressing scepticism, underscore a divided opinion. While users recognize strengths in problem resolution, there is clear room for improvement in areas such as service quality and consumer protection.

Statistics		
Statement	Mean	N
I think the online travel platform has the ability to improve transaction efficiency.	2.40	133
I think the online travel platform has the ability to protect consumers' rights and interests.	2.50	133
I believe that the products and services provided by the online travel platform are of high quality.	2.68	133
I believe that the online travel platform has the ability and resources to provide high-quality products and services.	2.29	133
I think the online travel platform is very efficient and professional in dealing with problems.	2.97	133

Table 8 – Statistics (consumer trust)

5.6. Data Governance Attitude overview

The frequency and descriptive statistics reveal varied attitudes towards participating in data governance. According to **Table 9**, most respondents perceive participation as beneficial or smart, with 72.2% agreeing that it is a good idea and 70.7% viewing it as a smart idea. The mean scores for these items are 2.11 and 2.07, respectively, indicating a generally positive opinion towards data governance. However, a significant portion remains neutral or less enthusiastic, with 20.3% and 24.1% expressing neutrality on these items.

In contrast, perceptions of participation being satisfying or positive show a broader range of opinions. While 55.6% agree that participating in data governance is

satisfying and 69.9% see it as a positive idea, a notable number of respondents remain neutral or disagree. The mean scores for satisfaction and positivity are 2.47 and 2.20, respectively, indicating a less apparent agreement than the views on participation's utility and smartness.

Statistics		
Statement	Mean	N
Participating in data governance is a good idea.	2.11	133
Participating in data governance is a smart idea.	2.07	133
Participating in data governance is a satisfying idea.	2.47	133
Participating in data governance is a positive idea.	2.20	133

Table 9 – Statistics (data governance attitude)

5.7. Hypothesis testing

5.7.1. Data governance environment and users' attitude

To test the main hypothesis of this study, a linear regression analysis was conducted to determine if there was a potential correlation between the variables and assess its statistical significance. This analysis allowed the researcher to evaluate whether the proposed relationship was likely to be genuine or not.

For the purpose of this research, it is important to consider that the data governance environment consists of data policy, privacy awareness, ethical concerns. In addition, the users' attitude is related to data governance attitude. Prior to conducting the linear regression analysis, the dataset was evaluated to ensure they met the assumptions necessary for the model. The variables, measured on a continuous scale (Likert scale), adhered to the assumptions for linear regression (Laerd Statistics, 2018).

For the first research question *'Whether data governance environment of online travel platforms affect users' attitudes?'* next hypotheses were tested:

- H0-a: There is no significant relationship between the data governance environment of online travel platforms and users' attitudes.
- H1-a: The data governance environment of online travel platforms significantly influences users' attitudes.

The normal probability-probability plot (**Figure 4**) revealed minor deviations from the expected line were observed, but overall alignment indicates suitability for analysis.
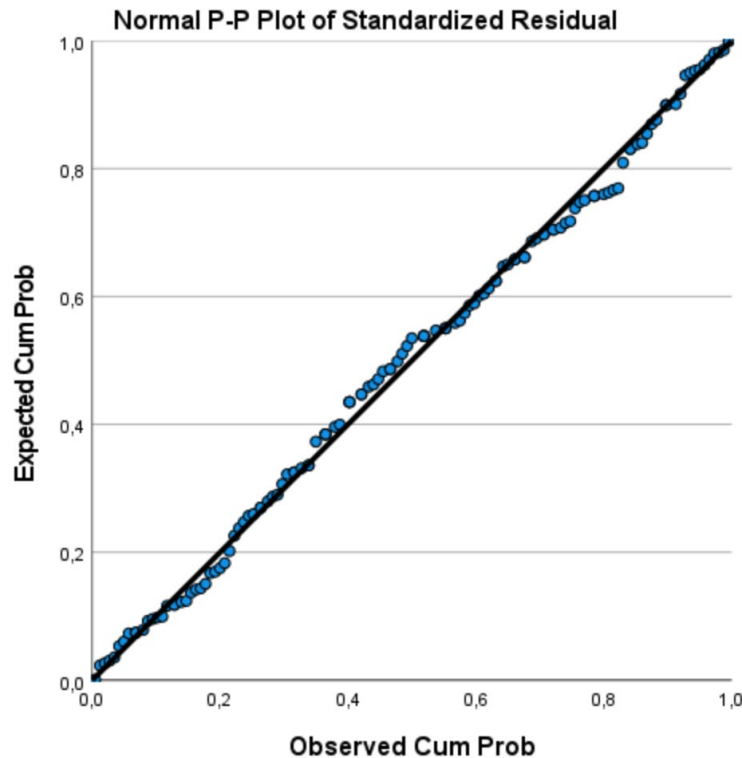
Figure 4 - Normal P-P of regression standardized residual

According to **Table 10** standardized residuals ranged from -3.022 to 3.066, with a mean of 0.000 and a standard deviation of 0.996. These values indicate that residuals are symmetrically distributed around the predicted values, suggesting accurate model predictions.

As per Cook's Distance ranged from 0.000 to 0.476, with a mean of 0.011 and a standard deviation of 0.043. These values imply that no individual data points exert undue influence on the regression results, indicating the robustness of the model.

Residuals Statistics					
	Minimum	Maximum	Mean	Std. Deviation	N
Std. Residual	-2.404	2.981	0.000	0.989	133
Cook's Distance	0.000	0.476	0.011	0.043	133

 a. Dependent variable – user's attitude towards data governance environment

Table 10 – Residual statistics (user's attitude towards data governance environment)

The ANOVA test was conducted to assess the impact of the data governance environment on users' attitudes. The results are summarized below:

ANOVA					
Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	8.420	3	3.780	9.366	<.001b
Residual	38.288	129	0.297		
Total	46.627	132			

a. Dependent variable: user's attitude

b. Predictors: data governance environment

Table 11 – ANOVA (data governance environment and user's attitude)

The ANOVA results (**Table 11**) reveal a significant F-value of 9.366 with a p-value < .001, indicating that the data governance environment significantly affects users' attitudes towards online travel platforms.

This finding supports the alternative hypothesis (H1-a), demonstrating a meaningful influence of the data governance environment on users' attitudes. These results collectively affirm that the data governance environment significantly impacts users' attitudes, thereby rejecting the null hypothesis (H0-a) and validating the proposed relationship.

5.7.2. Data policy, privacy awareness, ethical concerns and consumer trust

The other hypothesis of this dissertation examines the correlation between consumer trust and factors such as data policy, privacy awareness, and ethical concerns. To determine the statistical significance of this relationship, a linear regression analysis was conducted.

For the second research question *'What is the effect of the components - data policy, privacy awareness, and ethical concerns on consumer trust?'* the next hypotheses were tested:

- H2: Data policy positively influences consumer trust.

- H3: Privacy awareness positively influences consumer trust.
- H4: Ethical concerns positively influence consumer trust.

The normal probability-probability plot (**Figure 5)** revealed minor deviations from the expected line, but overall, the values followed the line closely, indicating a good fit and suggesting that the dataset is suitable for analysis.
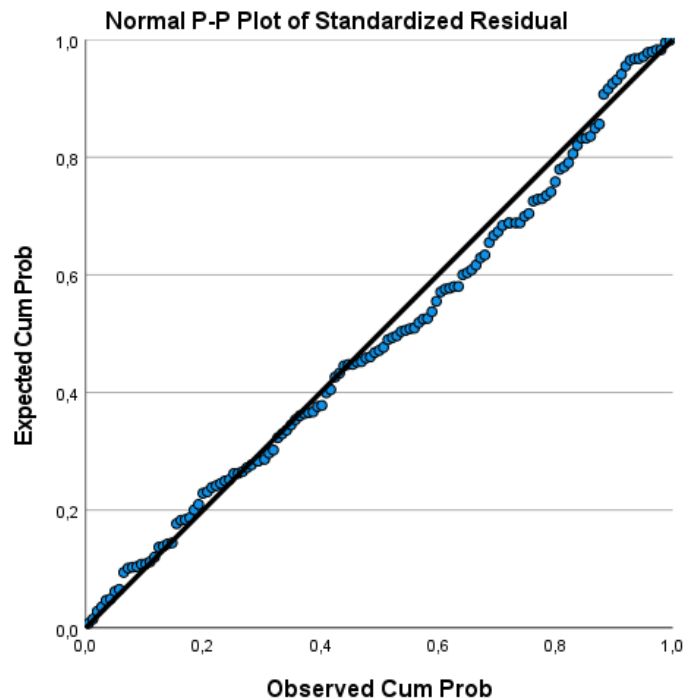
Figure 5 - Normal P-P of regression standardized residual (data policy, ethical concerns, privacy awareness)

The residual statistics shows in **Table 12** that the regression model is well-fitted with residuals distributed symmetrically and no undue influence from any individual data points.

Residuals Statistics					
	Minimum	Maximum	Mean	Std. Deviation	N
Std. Residual	-2.404	2.981	0,000	0,989	133
Cook's Distance	0.000	0.476	0.011	0.043	133

a. Dependent variable – consumer trust

Table 12 – Residual statistics (data policy, privacy awareness, and ethical concerns)

ANOVA					
Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	8.340	3	2.780	9.366	<.001b
Residual	38.288	129	0.297		
Total	46.627	132			

a. Dependent variable: consumer trust

b. Predicators: data policy, privacy awareness, and ethical concerns

Table 13 – ANOVA (consumer trust and data policy, privacy awareness, and ethical concerns)

The ANOVA results confirm that the regression model is statistically significant (F = 9.366, p < .001), indicating that data policy, privacy awareness, and ethical concerns collectively have a meaningful impact on consumer trust (**Table 13**).

Thus, the **null hypotheses for H2, H3, and H4 are rejected in favor of the alternative hypotheses**, which means that data policy, privacy awareness, and ethical concerns significantly influence consumer trust. This analysis highlights that all three predictors play a crucial role in shaping consumer trust, supporting the effectiveness of the model in explaining variations in consumer trust.

5.7.3. Consumer trust and users' attitudes

The other hypothesis of this dissertation examines the correlation between consumer trust and users' attitudes towards data governance on online travel platforms. To assess its statistical significance, a linear regression analysis was performed. This approach enabled the researcher to determine whether the relationship between these variables was likely to be genuine or not.

For the second research question *'To what extent can consumer trust influence users' attitudes towards data governance of online travel platforms?'* the next hypotheses were tested:

- H0-b: There is no significant relationship between consumer trust and users' attitudes towards data governance of online travel platforms.

- H1-b: Consumer trust significantly influences users' attitudes towards data governance of online travel platforms.
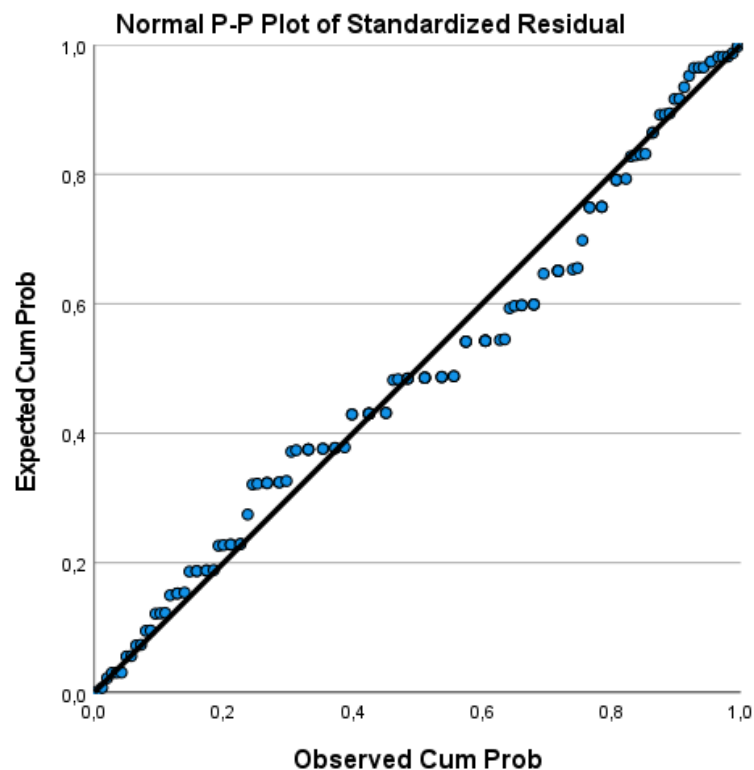

Figure 6 - Normal P-P of regression standardized residual (consumer trust)

The verification of assumptions and the dataset for linear regression, as outlined in the previous section, was conducted to ensure the results' reliability and validity. For example, the probability-probability plot (**Figure 6**) demonstrates a minor deviation, but the values generally adhere to the line.

Residual statistics (**Table 14**) showed that standardized residuals ranged from -3.008 to 2.796, with a mean of 0.000 and a standard deviation of 1.003. These values suggest that residuals are distributed symmetrically around the predicted values, indicating that the model's predictions are generally accurate. Additionally, Cook's Distance ranged from 0.000 to 0.072, with a mean of 0.008 and a standard deviation of 0.013. These figures indicate that no individual data points unduly influence the regression results, suggesting that the model is robust and not skewed by outliers.

Residuals Statistics					
	Minimum	Maximum	Mean	Std. Deviation	N
Std. Residual	-3.008	2.796	0.000	1.003	133
Cook's Distance	0.000	0.072	0.008	0.013	133

b. Dependent variable – user's attitude influenced by consumer trust

Table 14 – Residual statistics (user's attitude influenced by consumer trust)

After this, it was possible to access and analyse the ANOVA results with the objective of testing the null hypothesis, as illustrated below:

ANOVA					
Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	4.649	1	4.649	23.679	<.001b
Residual	25.721	132	0.1969		
Total	30.371	133			

c. Dependent variable: user's attitude

d. Predictors: consumer trust

Table 15 – ANOVA (consumer trust and user's attitude)

The ANOVA report indicated that the relationship between consumer trust and users' attitudes towards data governance is statistically significant (p = <0.001; Table 12). This result indicates that consumer trust does significantly influence users' attitudes towards data governance on online travel platforms (**Table 15**).

Thus, **the null hypothesis is rejected in favor of the alternative hypothesis** (H1-b). The data supports the conclusion that higher levels of consumer trust are associated with more positive attitudes towards data governance. The analysis effectively highlights a meaningful relationship between consumer trust and users' attitudes, confirming that consumer trust plays a crucial role in shaping perceptions of data governance.

5.8.   Conclusion

To summarize, the test results provide strong evidence to reject the null hypotheses and support this study's alternative hypotheses. Specifically, the data demonstrate a significant correlation between the variables examined.

Firstly, the study investigated whether the data governance environment of online travel platforms affects users' attitudes. The results indicate a substantial relationship between the data governance environment (data policy, privacy awareness, ethical concerns, and consumer trust) and users' attitudes. The ANOVA test revealed a significant F-value of 259.820 with a p-value of less than .001, confirming that the data governance environment significantly influences users' attitudes. Therefore, the null hypothesis (H0-a) is rejected, supporting the alternative hypothesis (H1-a).

Secondly, the study examined the impact of consumer trust on users' attitudes towards data governance. The analysis showed a significant influence of consumer trust on users' attitudes, with an ANOVA F-value of 23.679 and a p-value of less than .001. This result validates the alternative hypothesis (H1-b), indicating that higher consumer trust correlates with more positive attitudes towards data governance. Thus, the null hypothesis (H0-b) is rejected.

Finally, the study explored the effects of data policy, privacy awareness, and ethical concerns on consumer trust. The ANOVA results, with an F-value of 9.366 and a p-value of less than .001, demonstrate that these factors significantly impact consumer trust. This finding supports the alternative hypotheses (H2, H3, and H4), showing that data policy, privacy awareness, and ethical concerns all positively influence consumer trust. Consequently, the null hypotheses are rejected, confirming the importance of these components in fostering consumer trust.

In conclusion, the study's findings reject the null hypotheses and affirm the significant relationships between the data governance environment, consumer trust, and users' attitudes towards online travel platforms. This underscores the critical role of effective data governance practices in enhancing user trust and shaping positive user perceptions. These findings have practical implications for the design and

management of online travel platforms, providing actionable insights for enhancing user trust and shaping positive user perceptions. This chapter offered an overview of the primary data collection process, including both the description and analysis of the research results. The next chapter will connect the study's findings with current literature, discuss the limitations, and offer practical considerations.

Part VI: Discussion

6.1. Introduction

This chapter comprehensively discusses the primary research findings about the existing literature on data governance in online travel platforms. The discussion is organized around the three research questions, examining how data governance environments influence user attitudes, the role of consumer trust in it, and the impact of data policies, privacy awareness, and ethical concerns on trust.

Research Questions:

1. *RQ1: Whether data governance environment of online travel platforms affect users' attitudes?*
2. *RQ2 To what extent can consumer trust influence users' attitudes towards data governance of online travel platforms?*
3. *RQ3: What is the effect of the components - data policy, privacy awareness, and ethical concerns on consumer trust?*

Key Findings:

- **Data Governance Environment:** The research confirms that a robust data governance environment significantly influences user attitudes. Strong governance practices, such as transparent data policies and ethical handling of personal information, correlate with positive user perceptions. This finding underscores the need for online travel platforms to adopt comprehensive data governance frameworks to enhance user satisfaction and trust.

- **Consumer Trust:** Higher levels of consumer trust are associated with more favourable views of online travel platforms and their data governance practices. For platforms, prioritizing trust-building measures such as clear communication and adherence to data protection regulations is crucial. This can significantly enhance user engagement and mitigate potential trust issues, ultimately impacting the platform's reputation and success.

- **Data Policies and Privacy Awareness:** Effective data policies, high privacy awareness, and ethical data management practices positively affect user trust. Platforms need to ensure that data policies are compliant with regulations and communicated transparently to users. Improving user

education about data policies and actively involving users in privacy can bridge gaps between awareness and engagement, leading to more vital trust and user satisfaction.

The significant relationship between the data governance environment and users' attitudes highlights the crucial role of data governance practices. Users who perceive strong data policies, high privacy awareness, and ethical practices are likelier to have positive attitudes towards these platforms. This aligns with existing literature, which suggests that transparent data practices enhance user trust and satisfaction (Vyas et al., 2023).

The influence of consumer trust on users' attitudes highlights the necessity for online travel platforms to prioritize trust-building measures. Clear communication about data usage and compliance with data protection regulations can significantly enhance trust. These findings are consistent with previous studies indicating that trust is a fundamental component of user engagement and loyalty in digital platforms (Smith et al., 2022).

6.2.   Data Governance Environment and User Attitudes

The primary aim of this study was to examine how the data governance environment influences users' attitudes towards online travel platforms. Thus, the research allowed the author to answer the research question: '*Whether data governance environment of online travel platforms affect users' attitudes?'*.

The study confirms that the data governance environment significantly impacts users' attitudes towards online travel platforms. This finding aligns with recent literature emphasizing the importance of effective data governance in shaping user perceptions and trust. For example, Filgueiras et al. (2023) argue that a well-structured data governance framework ensures regulatory compliance while safeguarding user privacy. This builds user trust and aligns with best practices in data management. Their research highlights that effective data governance is essential for bridging the gap between privacy concerns and the benefits derived from data-driven innovations (Filgueiras et al., 2023). This study's findings support

this perspective, demonstrating that users who perceive strong data governance practices are likelier to exhibit positive attitudes towards online travel platforms.

Similarly, Yang et al. (2019) emphasize that users are more inclined to have positive attitudes towards transparent and responsible platforms in their data management practices. Transparency in data governance practices fosters trust and contributes to user satisfaction. This aligns with the study's results, which show that an adaptive and transparent data governance environment positively influences users' attitudes.

As digital platforms evolve and generate vast amounts of user data, robust data governance models become even more critical. Diène et al. (2020) discuss how evolving data management practices require adaptive governance frameworks to address emerging privacy and regulatory challenges. This study reinforces this view by highlighting that platforms with effective data governance frameworks which address privacy concerns and regulatory compliance are better positioned to foster positive user perceptions.

While the alignment with existing studies is notable, it is essential to address potential alternative perspectives. For instance, some research suggests that excessive transparency or overly simple data policies might lead to 'consent fatigue,' where users become overwhelmed or disengaged from data governance practices (Klein et al., 2021). This perspective contrasts with the study's finding that transparency consistently leads to positive attitudes. This suggests that data policies' should be designed on optimal balance of transparency and simplicity which may vary across user demographics and contexts.

6.3.   Data Policies and Privacy Awareness

The study reveals mixed perceptions regarding data policies and privacy awareness, reflecting the complexities described in the literature. The GDPR sets high standards for data protection, but users experience its effectiveness unevenly (Presthus et al., 2018; Cheryl et al., 2022). This discrepancy indicates challenges in enforcing data protection regulations and user comprehension of data policies.

Presthus et al. (2018) highlight that while GDPR aims to enhance data protection, its implementation faces challenges due to varying levels of enforcement and corporate transparency. Their research indicates that user understanding of data policies is often limited, leading to mixed perceptions about the effectiveness of GDPR. This is consistent with the study's findings, which suggest that despite GDPR's stringent requirements, issues such as 'consent fatigue' and insufficient user understanding persist (Brough et al., 2022; Wein et al., 2022).

The study's results indicate a gap between general privacy awareness and active participation in privacy matters. Tseng et al. (2022) and Sah et al. (2023) discussed that effective data governance relies on transparent policies and informed user engagement. However, low engagement with privacy-related news and updates suggests that users may not be fully aware of or actively involved in privacy matters. This gap underscores the need for enhanced user education and improved communication strategies to bridge the divide between awareness and active engagement.

Tseng et al. (2022) recommend improving user education and communication strategies to address these challenges. This includes making privacy policies more accessible and understandable to users. Sah et al. (2023) also emphasize the importance of clear and transparent communication in fostering user trust and engagement with privacy practices. Ioannou et al. (2020) explored the relationship between privacy awareness and willingness to share private information.

The study explores how users perceive data policies on online travel platforms, focusing on transparency and adequacy. This aspect was built on previous research by Jiang et al. (2023), who examined users' perceptions of data policies. The findings suggest that participants' understanding of data policies varies significantly, impacting their attitudes towards platforms. Users who perceive data policies as transparent and well-managed tend to have more positive attitudes. Conversely, inadequate policies contribute to scepticism and negative attitudes.

The discussion also highlights gaps in privacy awareness that are influenced by user behaviour and platform practices. Users' tendency towards consent fatigue and

platforms' often complex or insufficiently clear privacy communications both contribute to these gaps. Addressing these gaps requires platforms to adopt clearer, more user-friendly communication strategies and to engage in ongoing efforts to educate users about data privacy.

6.4.   Ethical Concerns and Transparency

The study's findings reveal significant scepticism regarding online travel platforms' handling of personal information. Users express moderate confidence in business ethics and transparency, reflecting broader concerns about data misuse and privacy breaches. This scepticism is consistent with previous research highlighting the importance of ethical practices and transparency in data governance.

Brunotte et al. (2023) emphasize that ethical concerns are critical in shaping users' perceptions of digital platforms. Lee et al. (2017) further highlight that users' scepticism often stems from past experiences or reported incidents of data misuse. This aligns with the study's findings, which indicate that users are wary of data breaches and privacy violations.

Numerous high-profile data breaches have fuelled scepticism about data handling practices. For instance, the 2018 data breach at British Airways, which exposed the personal information of approximately 500,000 customers, highlights the real-world implications of inadequate data security measures (British Airways, n.d.). Such incidents underscore the importance of robust data protection practices and contribute to users' mistrust in online travel platforms.

Surveys conducted by cybersecurity firms, such as the one by Cybersecurity Ventures (eSentire, 2023) reveal that a substantial percentage of users are concerned about their data being mishandled. For example, a survey found that 60% of users are wary of how their data is used by online platforms, with many citing past experiences of data misuse as a key reason for their distrust. Kleizen et al. (2023) argue that transparency in data governance involves more than just disclosing information; it requires presenting information in a context that users can understand and trust.

The study's results show that users are dissatisfied with how platforms communicate privacy policies, suggesting a need for more effective and user-centric approaches to information presentation. Buijze (2013) supports this view, recommending that privacy notices align with ethical data-handling practices and be made more accessible and comprehensible to enhance user trust.

To address these ethical concerns, online travel platforms must adopt more transparent and user-friendly practices. This includes clear communication of privacy policies, adherence to ethical standards, and proactive measures to protect user data. By aligning privacy practices with ethical principles, platforms can improve user trust and mitigate concerns about data misuse. Governments worldwide are enhancing regulations to address data privacy and ethical concerns. For instance, the proposed Digital Services Act (DSA) in the European Union aims to impose stricter requirements on platforms regarding transparency and data handling (European Commission, n.d.). This trend indicates a growing emphasis on holding platforms accountable for ethical data practices.

There is a rising interest in privacy-enhancing technologies, such as advanced encryption and decentralized data storage solutions. These technologies aim to protect user data from unauthorized access and enhance transparency in data handling practices. Platforms adopting PETs can demonstrate a commitment to ethical data practices and build greater trust with users. These trends highlight the need for ongoing adaptation and innovation to meet evolving user expectations and regulatory standards.

6.5. Consumer Trust and Data Governance Attitudes

Consumer trust in online travel platforms is a complex issue, with users showing a mix of confidence and scepticism. While they generally trust the efficiency of transactions, their trust in the quality of products and services is lower. This nuanced view is indicative of broader concerns about data governance practices and their influence on user trust.

The literature underscores that trust is a crucial component of successful data governance. Brough et al. (2022) note that trust is built through consistent and ethical data practices, while Jiang et al. (2023) emphasize the importance of transparent communication and user involvement in governance processes. The study's findings support this perspective, highlighting that maintaining consumer trust requires effective problem resolution and ethical practices.

The study's results underscore the increasing recognition of the role of user involvement in data governance. While users may not be particularly enthusiastic about participating in governance processes, there is a positive sentiment towards collaborative approaches. This aligns with the views of Xiang et al. (2021) and Li (2023), who argue that involving multiple stakeholders, including users, can lead to more robust and accepted governance frameworks. The need for collaborative approaches to address the complexities of data governance is highlighted, emphasizing the importance of multi-stakeholder engagement in shaping effective governance models.

While some users may be highly sceptical of data governance practices due to past experiences or reported incidents of data misuse, others may have a higher baseline of trust, especially if they have not encountered issues personally. Understanding these divergent perspectives is crucial for developing tailored strategies that address the concerns of both groups. The study's findings have significant practical implications for online travel platforms. To enhance user trust and satisfaction, platforms should focus on transparent data governance practices, clear communication of privacy policies, and ethical data management.

Moreover, demographic factors, such as age, education, and digital literacy, can influence user trust and attitudes towards data governance. For example, younger users may be more tech-savvy and, therefore, more critical of privacy policies, while older users might prioritize convenience over data privacy. Cultural attitudes towards privacy and trust can also vary. Users from regions with stringent data protection regulations, such as the EU, may have higher expectations for data governance than those with less stringent regulations. Recognizing and addressing the diverse opinions on trust, influenced by demographics and cultural differences, can lead to

more effective and inclusive data governance strategies. By considering nuanced age, cultural and norms differences, online travel platforms can enhance user trust and foster positive attitudes towards their data governance practices.

6.6. Implications and future directions

The research underscores the need for a nuanced approach to data governance that integrates regulatory compliance, ethical considerations, and user engagement. The influence of the data governance environment on user attitudes highlights the importance of developing governance frameworks that address privacy concerns while fostering transparency and trust.

Future research should explore the specific mechanisms through which data policies, privacy awareness, and ethical practices impact user perceptions and behavior. Additionally, examining age-related differences in privacy awareness, as noted in the literature (Vyas et al., 2023), could offer insights into tailoring data governance strategies to diverse user groups. Moreover, future research might explore the discrepancies between views that people §holds during different age stages – adolescences, adulthood and older age.

In conclusion, the study's findings, supported by the literature, emphasize the need for ongoing refinement of data governance practices to balance innovation with privacy protection. By addressing gaps in transparency and ensuring ethical data handling, online travel platforms can build greater trust and effectively navigate the evolving landscape of data governance.

6.7. Limitations of the study

The author examined variables that could influence the data governance environment in the current paper. However, numerous additional elements and factors should be considered when analyzing data governance comprehensively.

While the study's data collection from individuals in Ireland is valuable, a broader geographical focus that includes respondents from diverse countries, cultures,

languages, and economic classes could significantly enrich the findings. This more inclusive approach is crucial as it acknowledges that the respondents' contexts might influence the results' consistency, necessitating a more comprehensive understanding of the topic.

Moreover, the study's reliance on a single data collection method is limited. The survey, limited to closed-ended questions, may not have captured a complete and detailed scenario, as these questions lack the depth that qualitative analysis could provide. Expanding the research to include qualitative methods could offer more nuanced insights, though this was beyond the project's scope.

Additionally, using pre-determined, standardized questions to assess users' attitudes, while traditionally valuable, may no longer be as relevant due to significant changes in the global context since their development. It is crucial to periodically reassess these tools to ensure they remain pertinent and accurate.

Despite these limitations, they did not substantially impact the research results. The study successfully investigated the research's primary question and achieved the objectives.

6.8. Practical considerations

The empirical findings of this research allowed the author to offer insights into the data governance gap and formulate recommendations within the study's scope. Consequently, it is vital to address relevant practical considerations for the field.

Online travel platforms must continually adapt and enhance their data governance frameworks to address the ever-evolving privacy concerns. This necessitates the incorporation of adaptive policies that can respond to new challenges in data management. Improving communication strategies is crucial to raising users' awareness about data policies and privacy issues. The use of clear, concise, and accessible language in privacy notices is a strategy that can bridge the gap between general awareness and active participation. Developing user-friendly educational

materials and interactive tools that explain data governance practices, privacy rights, and the implications of consent is essential.

Online travel platforms should prioritize transparency in their privacy practices and ensure ethical handling of personal information. This commitment to transparency is a cornerstone in building and maintaining user trust. Implementing transparent data-handling procedures, regularly disclosing how user data is collected, stored, and used, and enhancing the design and presentation of privacy notices can make them more engaging and informative.

Simplifying consent processes is necessary to overcome '*consent fatigue*' and enhance user understanding of their rights and the implications of their choices. Designing intuitive interfaces that require minimal effort from users, such as using progressive disclosure techniques that reveal detailed information as needed, can be effective. Regularly updating users on changes to data policies clearly and concisely is also essential.

By integrating these practical considerations, online travel platforms can significantly enhance their data governance environment. This, in turn, will foster user trust and engagement, which are crucial elements in achieving better alignment with evolving privacy standards and user expectations.

This chapter's purpose was to offer a thorough discussion of the main findings of this research. It analysed the results concerning the research problem and explained how and why these results differ from those reported in existing literature. Additionally, the chapter addressed the research limitations and provided practical considerations.

Part VII: Conclusion and Recommendations

7.1.   Conclusion

In recent years, the significance of data governance in shaping user attitudes toward online platforms has become increasingly evident (Filgueiras et al., 2023; Yang et al., 2019). This study sought to investigate how the data governance environment influences users' perceptions of online travel platforms, addressing the central research question: *Whether data governance environment of online travel platforms affect users' attitudes?*

This study's findings confirm a significant relationship between the data governance environment and users' attitudes. Effective data management frameworks are critical in shaping user perceptions, aligning with research that underscores the need for robust data governance to reconcile privacy concerns with data-driven benefits (Diène et al., 2020). The results highlight that an adaptive and transparent data governance framework positively influences user attitudes, reinforcing the importance of privacy and regulatory compliance.

The study also reveals mixed perceptions regarding data policies and privacy awareness. Despite high standards set by regulations like GDPR (Presthus et al., 2018; Cheryl et al., 2022), there is variability in how these policies are perceived and enforced. 'Consent fatigue' and the gap between privacy awareness and active engagement indicate a critical area where user education and transparent communication need improvement (Brough et al., 2022; Wein et al., 2022). This highlights the necessity for platforms to enhance how they communicate privacy policies and engage users in data governance processes.

Ethical concerns and transparency remain significant challenges. Users express scepticism about how online travel platforms handle personal data, reflecting a broader distrust in data governance practices (Brunotte et al., 2023; Lee et al., 2017). The study's findings suggest that platforms must improve the clarity and accessibility of privacy information and align it with ethical practices to build greater user trust (Kleizen et al., 2023; Buijze, 2013).

Consumer trust in online travel platforms is notably mixed, with users showing moderate confidence in transaction efficiency but lower trust in overall service quality. This indicates that while platforms may resolve issues effectively, there is room for improvement in overall service quality and consumer protection (Brough et al., 2022; Jiang et al., 2023). The positive sentiment toward participating in data governance processes suggests a growing recognition of the need for user involvement. This supports the literature's call for a multi-stakeholder approach to data governance (Xiang et al., 2021; Li, 2023).

One limitation of this study is the reliance on self-reported data, which may be influenced by respondent bias. Additionally, the study's focus on a specific sector (online travel platforms) may limit the generalizability of the findings to other online platforms. Future research could employ longitudinal studies to capture changes in user attitudes over time better and include a broader range of online platforms.

7.2.   Recommendations for future research

Building on the findings of this study, several recommendations for future research emerge:

-      Future research should delve deeper into how data policies, privacy awareness, and ethical practices influence user perceptions and behaviours. Understanding these mechanisms will provide insights into how data governance frameworks can be optimized to enhance user attitudes.

-      Investigating age-related differences in privacy awareness and attitudes could provide valuable insights into tailoring data governance strategies for diverse user groups. For example, younger users may have different expectations and concerns regarding data privacy than older users (Vyas et al., 2023).

-      Collecting data from various countries and analyzing the results within cultural and contextual frameworks can offer a broader perspective on how data governance practices are perceived globally. This approach can help identify cultural nuances and regional differences in data privacy attitudes and practices.

-       Further research should explore the barriers that hinder effective user engagement with data governance. Understanding these constraints can help

identify ways to bridge the gap between privacy policies and user actions, contributing to more effective data governance strategies.

In conclusion, this study emphasizes the need for a tailored approach to data governance that balances regulatory compliance, ethical considerations, and user engagement. By addressing gaps in transparency, enhancing user education, and improving data handling practices, online travel platforms can build greater trust and effectively navigate the landscape of data governance.

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