A Qualitative Study on the Challenges Posed by the Digital Economy for Large Financial Firms

Ariles Ibrahim

May 2024

Word Count: 10371

Presented as part of, and in accordance with, the requirements of the final year degree of Bachelors of Science by advanced study in International Business Management in the Faculty of Economics, Finance and Management at the University of Bristol.

Social Sciences and Law

Abstract

The rapidly evolving pace of the digital economy poses a variety of challenges to financial service firms. Thus, this research aimed to understand and explore the various challenges faced by financial service firms, posed by the digital economy and their extent. Qualitative interviews were conducted with employees in various financial service firms, with differing backgrounds, financial services experience and perspectives. The results showed that the main challenges were technology integration, insufficient regulatory bodies, the endangerment of services such as consulting and audit, followed by reputational and trust hurdles ranging from employee to enterprise level. This study seeks to provide a clear conception of current and future challenges financial service firms face.

Acknowledgments

I would like to start by thanking my supervisor, Samir Balakishi, for his invaluable and continuous support throughout this research process. His advice, support and insightful counselling has been of significant help for me.

I would also like to acknowledge my lecturers that have provided me with precious guidance during this project. I would particularly like to thank Chinyere Uche for helping me structure my research at the beginning of the process and for aiding me find participants.

I would like to extend my gratitude to my family and friends, who have given priceless support throughout the process.

I also want to thank all the participants for giving me their time and sharing their views on this study. All of the conversations were extremely insightful and compelling.

Tables of Contents

Chapter 1: Introduction	4
1.1 The Digital Economy and Financial Services Firm	4
1.2 Research Objectives	5
1.3 Dissertation Structure	5
Chapter 2: Literature Review	6
2.1 Introduction.	6
2.2 Cybersecurity and Data Protection:	7
2.3 Regulatory Compliance in a Digital World:	8
2.4 Adapting to New Business Models:	10
2.5 Talent Management and Skill Development:	11
2.6. Maintaining Reputation and Trust:	13
2.7 Conclusion.	14
Chapter 3: Methodology	16
3.1 Philosophical Position	16
3.2 Research Strategy	18
3.3 Data Collection	18
3.3.1 Semi-Structured Interviews (SSI)	18
3.3.2 Interview Questions.	18
3.3.3 Sampling and Selecting Participants	19
3.3.4 Participants Table	19
3.4 Data Analysis	20
3.5 Ethical Considerations	20
Chapter 4: Findings	21
4.1 Challenge 1: Digital Technology Integration Challenge	21
4.2 Theme 2: Regulatory Challenges	23
4.3 Challenge 3: A Precarious Consulting Sector	25
4.4 Theme 4: Challenges in Auditing	27
4.5 Theme 5: Reputation and Customer Trust	29
4.6 Summary of Findings	31
Chapter 5: Discussion	32
5.1 Integrating Digital Technologies	32
5.2 Regulatory Challenges	34
5.3 The Consulting Sector's Digital Transformation	35
5.4 Challenges in Audit	36

5.5 Reputation and Trust	36
5.6 Limitations	37
Chapter 6: Conclusion	38
6.1: Further Research	38
Chapter 7: Reference List	39
Chapter 8: Appendix	53
Tables of Figure	a
<u>Tables of Figure</u>	<u>S</u>
Figure 1: Participant Consent Form	
Figure 2: Sample of Interview Questions	56
Figure 3: Primary Data Construct	57
Figure 4: Approved Ethics Form	57

Chapter 1: Introduction

1.1 The Digital Economy and Financial Services Firm

The 'digital economy' refers to the transformative shift in business practices and economic activities driven by technological advancements (Limna, Kraiwanit and Siripipatthanakul, 2023). Historically, most financial service firms predate this emerging phenomenon (Chanias, Myers, and Hess, 2019). Thus, the digital economy initially brings opportunities such as enhanced global interconnectivity and improved customer relationships through more efficient systems due to digital platforms and Internet of Things (Berman, 2022). However, the rapid technological evolution has transformed these opportunities into significant challenges, compelling firms to continuously adapt their business strategies. Today, a financial service firm's relevance and long-term success hinge on its ability to keep pace with rapid advancements and compete against fully digital rivals.

These firms are now confronting a multitude of challenges at both industrial and organisational levels, including financial pressures and technological disruptions caused by the recent rapidity of the digital economy's evolution (Besson and Rowe, 2012; Crowston and Myers, 2004; Venkatraman, 1994). The expansion of digital capabilities requires a nuanced understanding of the digital economy through effective strategic implementation, and ongoing adaptation to technological and market changes. Consequently, the digital economy can impact a range of services from product development to risk management and even influences the demand for financial services like auditing and consulting (Brătăşanu, 2017).

The digitalisation of financial service firms demands a thorough examination to comprehend the principal challenges these firms face. This study delves into how these traditional financial service firms can navigate the complexities of the digital economy effectively, focusing on maintaining quality, ensuring robust cybersecurity measures, and upholding customer trust and international reputation.

1.2 Research Objectives

This dissertation offers an insightful study of the challenges posed by the digital economy that financial service firms face now and in the future. Coupled with the application of qualitative research methods, this paper presents a unique opportunity, as there is a noticeable gap in literature focusing on the various challenges of the digital economy specifically within the financial sector. Thus, the research will explore how the digital economy is challenging and reshaping specific financial services the firms provide. The analysis will also focus on the extent to which the digital economy's challenges present a threat to the industry and its firms, and its influence on their operational and strategic decisions. The qualitative approach of this dissertation will provide a detailed examination based on interviews and secondary literature, which will offer invaluable insights into the adaptive strategies employed by these firms.

1.3 Dissertation Structure

This paper will begin with a literature review thematically structured to identify some of the main challenges the digital economy poses to large financial service firms such as cybersecurity risks, global regulations, digital integration, reputational challenges and competitional shifts. The literature review will not only touch on existing issues but delve into potential future challenges financial service firms may face. Then, the philosophical section will outline the qualitative approach taken in the writing of this research, the methodical process of the interviews and the philosophical stance that this analysis takes. Ethical consideration will be discussed prior to the analysis of the interviews and secondary literature to showcase the rigorous standards applied to ensure the originality and quality of the data. Finally the discussion section will take the data collected through the SSI's and apply relevant information from journal articles to explore in depth the challenges of cybersecurity, technological integration, reputational trust and competitiveness, focusing on specific sectors in finance.

Chapter 2: Literature Review

2.1 Introduction

The digital economy, characterised by the integration of digital technologies like the internet, cloud computing, and artificial intelligence, significantly influences how multinational corporations (MNCs) operate. As these technologies reshape the landscape of production, distribution, and consumption, large financial service firms, multinational entities offering services from consulting to auditing, face unique challenges (Barefoot et al., 2018; Xia, Baghaie, and Mohammad Sajadi, 2023). The transition from traditional financial models to digital-centric approaches necessitates not only the adoption of new technologies but also a strategic overhaul to accommodate diverse regulatory environments across different regions (Dehnert, 2020; Bukht and Heeks, 2017).

This literature review will explore the key challenges these firms encounter, including issues related to skills gaps, data integrity, security in digital tools, and the maintenance of service quality amidst technological evolution. Furthermore, it will address the adaptation to new financial practices such as the use of blockchain, the assessment of digital assets, and the evolving role of these firms as strategic consultants in the digital economy (Li et al., 2022; Laudien and Pesch, 2018).

2.2 Cybersecurity and Data Protection:

Firstly, finance is more digitised than ever, causing significant issues such as cybersecurity and data protection, which are becoming a serious concern for large financial service firms. The rise of digitalisation has helped sizable financial service firms but has also put their operations at risk due to the simultaneous rise in cyber attacks. Another similar complex is the weakness of these companies' financial data protection technologies (Lees, Crawford and

Jansen, 2018). Cyber threat incidents have gradually risen throughout the last decades, stressing the importance of implementing better and more robust security measures (Akhtar, Sheorey and Bhattacharya, 2021). Consequently these digital attacks can compromise client and service provider privacy and operations and come with significant costs for the company. The need for a proactive and understanding approach to this issue is more crucial than ever for these companies as it goes beyond traditional IT security (Islam, Farah & Stafford, 2018).

Another challenge linked to data protection is these sizable financial service firms' vulnerability to cloud-based systems. Most of them need to be more rigorous, as potential targets for cyber attacks and their regulations differ from country to country (Krieger, Drews & Velte, 2021). These companies need to have advanced encryption to protect sensitive financial information so that they do not have their operations and privacy negatively impacted (Ryoo et al., 2014). Encryption is critical in safeguarding financial data, especially with the increase in online financial transactions. For one of these firms to need a better encryption system puts all their client's private information at risk, diminishing the company's competency (Hughes et al., 2019). Plus, data breach incidents damage the firm's reputation and legal liabilities and affect the financial service industry (Liu, 2020). This emphasises the need for international collaboration in cybersecurity, pushing for a unified global approach to face cyber threats. Large financial service firms have a global presence and great influence, which could be significant in such alliances (Hamilton & Patel, 2021). It also emphasises the need for these companies to keep up with preemptive methods for encryption methods and cyberthreat-resistant measures (Kumar & Singh, 2020).

Finally, most financial transactions are digital, accelerating and improving sizable financial service firms' operations and profitability. For this advantage to be maximised, companies must deal with its challenges, reducing the risk of cyber attacks on financial operations and privacy. Some large financial service firms need better technology like cloud computing to protect themselves from such threats, posing a liability for the whole industry. Plus, these firms are dominating their industry, putting them in a position to establish rigorous industry standards for cybersecurity in the financial service sector (Nelson & Phillips, 2022).

2.3 Regulatory Compliance in a Digital World:

Another challenge posed by the ever-evolving digital economy for large financial service firms is to navigate the complex web of regulatory compliance, intensified to the international scale on which the firms operate. The digital economy has decentralised information, including financial data, helping companies expand their operations. It has created economic regulation issues, a complex web of regulations depending on the country, and a need for regulations for emerging digital technologies. This challenge pushes firms to have a clear and deep understanding of diverse legal systems and the ability to adapt to regulations in this growing digital economy (Beaumier et al., 2020).

Regulations for large financial service firm's operations have been unable to keep up with the rapidly evolving digitalisation. The regulatory framework's complexity is also emphasised globally, highlighting the struggle for these companies to adhere to international standards, differing interpretations and implementations depending on the country (Torous & Nebeker, 2017). The rise of digital technologies has created an economic gap for companies. Companies with an innovative mindset manage to keep up and use new technology to evolve their operations. However, some companies can not cope with the scope of the digital change, creating disparities between firms in the market (Schwab and Davis, 2018). The digital economy created a grey area for digital currencies and blockchain technology. These advancements have emerged recently and have been quickly implemented by financial service firms. Due to their complexity, they require new regulations and global regulatory compliance since they have been applied in rapidly evolving fields, often needing a transparent legal model (Feinstein & Werbach, 2020). Complexity in data protection regulations like GDPR on sizable financial service firms has been focused on managing sensitive client data across multiple jurisdictions. The impact of the lack of regulations for data protection across various countries can be significant since each of them has its own laws and enforcement mechanisms needing precise attention and support (Dounis, 2018). Plus, legal implications in cloud computing, such as data storage and processing, point out the flaws and importance of regulations in that sector (de Bruin & Floridi, 2016). Since cloud services operate in multiple countries, it is significant to regulate how large financial service firms use them for their and others' safety.

Another aspect of regulatory challenges due to the digital economy is the intricacies of digital taxation. These challenges underscore the need to determine tax jurisdictions and value digital assets, which is a new phenomenon for financial service firms. The lack of regulations in this sector affects digital transactions, which are more common than ever across different countries, and valuing digital firms could affect the whole financial market (Owens, 2021). The importance of adapting financial regulations has been stressed due to the evolving international financial reporting standards caused by the digital economy. Firms must adapt their practices to continuously align with the changing standards, a complicated task in a fast-changing environment for financial service firms (Muller, 2021).

Furthermore, the importance of due diligence required by regulators involved in Anti-Money Laundering (AML) and Combating the Financing of Terrorism (CFT) is significant mainly due to the rise of digital currencies, online platforms and online transactions. Due to diverse regulatory frameworks, these innovations present global complexities for financial service firms (Neto, 2022). Regulating digital assets has been more complex for firms and regulators due to potential scams that could interfere with the industry. These challenges highlight the importance of reevaluating and adapting traditional regulations to the new digital assets (Scullen, 2020).

Finally, harmonising the regulatory framework is essential to help financial service firms address the digital economy's challenges. Lack of regulations in the financial service industry can create inequalities between firms' performance and incertitude in financial reporting standards due to new technologies like cryptocurrencies and the emergence of digital firms. Implementing proper regulations and having regulators able to adapt to the evolving nature of the digital economy could benefit the firms and contribute to financial stability (Salazar et al., 2022). However, this major challenge needs more literature, as it is a modern problem; companies should focus on investigating it rapidly to avoid affecting their international operations.

2.4 Adapting to New Business Models:

Financial service firms have faced various challenges introduced by innovative business models, especially in their global operations. These challenges have come due to the rapid evolution of the digital economy, bringing fully digital-only businesses that changed revenue models and asset management on the global financial scale. The complexity of these fully digital companies is created by the issues of valuing intangible digital assets. It poses the need for financial service firms to develop and adapt to these challenges with innovative financial approaches (Rachana Harish et al., 2020).

A significant issue these new business models pose is the rise of subscription-based payment models. Such innovation may benefit consumers and merchants but significantly threaten financial service firms when analysing revenues. Due to their variability across countries, these companies must refrain from taking the traditional approach when either auditing or analysing them for investment purposes (Morrison & Stone, 2020). Tax accounting and complications still need to be fully implicated with global e-commerce operations, making this an issue for the financial industry that could negatively impact large financial service firms. Digital currency has been posing significant issues for these companies due to their constantly fluctuating value and their volatility across different jurisdictions (Cumming, Johan, & Pant, 2019).

Secondly, new technology like blockchain has significantly impacted financial service practices. Due to its major characteristic of being decentralised, it affects large financial service firms to adapt their business models as blockchain innovation ignores any intermediary in financial processes. It also takes significant time and cost for large firms to implement blockchain and revise their business model to keep up with the digital economy internationally (Bonyuet, 2020). Additionally, business operations have been challenged by the integration of AI. Financial service firms have had to reshape their operations, especially in financial data processing and interpretation. Changing to different financial techniques and focusing on algorithmic finance is a significant challenge financial service firms face (Shi-Ming Huang & Chang-ping Chen, 2020). For AI to be in the firm's business model, various costs for

implementation, hardware acquisition and maintenance are challenges the firms have to face. However, AI is only available for some of these financial service firms, creating a shift in the industry in operations and services (Niu et al., 2021).

Finally, the digital economy has given birth to different technologies, pushing traditional financial service firms to adapt their business models and creating fully digitalised companies. They come with challenges of their own, forcing these companies to learn and operate with them and understand their strengths and weaknesses to keep up with them and not be replaced by disruptive businesses.

2.5 Talent Management and Skill Development:

The digital economy's rapid evolution opened doors for new talents and a demand for new skills for large financial service firms. After developing sophisticated technological tools, large financial service companies acquired them to help them increase their operations. This created a demand for an exceptionally skilled workforce, adept in financial service on a global scale and digital technologies (Gow & Kells, 2018). Finding such talents was either rare, expensive or both for some companies. Finding workers skilled in areas like AI and cybersecurity within the financial service sector was complex for these companies as they operate in several countries (Jaiswal, Arun, & Varma, 2021).

Furthermore, large financial service firms integrating big data analytics do not require technical proficiency to manipulate the tools. They require an advanced understanding of them and a comprehension of diverse international financial standards and practices to combine both and achieve profitability successfully (Dagilienė & Klovienė, 2019). The other challenge explored is the implementation of AI into financial processes. The need for a deep understanding of artificial intelligence algorithms and their various implications to keep financial service quality and efficiency in countries is significant for large financial service firms (Banţa et al., 2022). There is also an urgent need for specialised skills in data privacy and security for financial service firms due to the rise in incidence in this area because of the digital economy (Zhang et al., 2018).

The issue that is presented to the large financial service firms is that their service operates on a global scale. This means that the challenge is recruiting and retaining talent and developing it in countries and areas where digitalisation could be more affluent. These companies must adopt a culture of teaching innovation and continuous learning methods adaptable across different international business cultures (Grimpe, Sofka, & Kaiser, 2022). The companies must enter academic institutions that prepare future workers with the necessary skill set and global mindset, creating a high demand for a low supply. The firms depend on these academic institutions to provide a range of digital literacy and technology-focused courses for these companies to be efficient with prepared workers (Goby & Lewis, 1999).

Additionally, the digital economy has created a need for financial service firms to create a workplace mixing digital advancement and remote work. The challenge is evaluating an efficient workplace for this new international and digital environment without losing productivity (Chatterjee et al., 2023). This highlights the significance of adopting a safe, diverse and inclusive workplace. This challenges financial service firms as this idea is emphasised for technology roles, as a diverse and healthy team can provide a broader perspective and solutions in international digital financial operations (Khor and Tan, 2022).

Finally, there is a real challenge for financial service firms to find skilled and talented workers who can balance modern digital tools and an international business mindset. However, for firms with workers of that calibre, the challenge is retaining these talents. Firms must provide a diverse and inclusive workplace for a diverse team to provide efficient and productive work (Empson et al., 2015). However, since this is a new challenge emerging for large financial service firms, there is little literature explaining how these firms can deal with it and help them identify the source of the problem.

2.6. Maintaining Reputation and Trust:

One of the biggest challenges financial service firms face in this international digital economy is maintaining a quality and trusted reputation. With information spreading rapidly to a broader audience, these corporations must be aware of public scrutiny. When a firm faces a setback, its reputation is at stake due to the digital economy spreading information incredibly (II

Park and Xiao, 2021). These firms must explore reputation management in this digital era, focusing on how online platforms can amplify positive and negative images globally (Gandini, 2016).

The issue that the digital economy presents to large financial service firms' reputations is linked to the challenge of integrating these digital technologies into their financial practices. These technologies raise doubts amongst clients due to their respective risks. If a company is subject to cyber threats, lack of accuracy and ethical issues due to adopting new technologies, its trustworthiness and reputation would be impacted worldwide. This challenges firms to ensure that their technological advancement enhances their operations and reputation, not to degrade it (Ahmad, 2024).

Additionally, the digital economy affected the role of CSR in reputation management for financial service firms. Now that they are globally connected and influential in the digital space, their operations are visible to a broader range of possible clients. Their engagement in CSR must reflect their engagement in ethical practices and social responsibility, as well as addressing environmental concerns and promoting diversity (Leiva, Ferrero, & Calderón, 2016). This is emphasised by the increasing demand for financial transparency. The digitalised world challenges these companies to become more financially transparent in their operations. Even though it is argued that due to privacy reasons, they are limited to being more open in terms of methodologies, findings and recommendations, it is becoming a necessary factor these large firms must take into account for reputational purposes (Zorio-Grima & Carmona, 2019).

To add on to this idea, digital transformation has an impact on internal corporate culture and its link to external reputation has been greatly examined. Corporations must foster a culture of integrity and ethics when acting in decision-making and financial operations in order to maintain a positive global reputation (Siyal et al., 2022). There has been a rise in significance in crisis management strategies for companies facing setbacks in the digital age, exhorting the need for better social plans in order to minimise the damage to their global reputation (Fronz, 2011).

Finally, financial service firms are challenged by the importance of consistent and honest communication with stakeholders. The digital economy created an era where misinformation can

rapidly spread, stressing the importance of clear and factual communication especially in an international environment where messages must be tailored to diverse cultural contexts (Moore & Seymour, 2005). Plus, the importance of strict adherence to evolving regulatory requirements, especially related to financial disclosures and data protection, is discussed, noting that compliance failures can significantly impact legal standings and public trust in multiple jurisdictions (Kleinman, Lin, & Palmon, 2014).

The vulnerability of firms' reputations in a digital world necessitates an investigation into their strategies for managing public perception and communication. This study will explore how public relations and corporate communications professionals at these firms navigate these challenges, with a particular focus on crisis management and ethical transparency.

Thus, another research question emerges: What are the long term implications for large financial service firms in response to the digital economy?

2.7 Conclusion

This literature review critically examines the challenges faced by large financial service firms in the digital economy, covering issues like cybersecurity, regulatory compliance, business model adaptation, skill retention, and maintaining reputation and trust. It highlights the paramount importance of cybersecurity as these firms increasingly digitise, necessitating robust security measures and advanced encryption to protect data and ensure client confidentiality. The review also discusses the complexities of operating globally, stressing the need for firms to navigate diverse regulatory environments with enhanced digital tools.

Plus, adapting to new business models requires updating financial practices and cultivating a workforce skilled in digital technologies. The creation of new roles and ongoing talent development are vital for keeping pace with digital demands. Additionally, the digital age increases public scrutiny and information spread, putting firm reputations at risk and underscoring the need for steadfast ethical practices and transparency.

Despite extensive literature, a gap exists regarding how financial service firms manage these digital challenges. This study aims to fill this gap through qualitative interviews, offering insights to inform industry best practices and future research, thereby enhancing operational efficacy and strategic decision-making in the digital landscape.

Aim:

• Understand and evaluate the challenges posed by the digital economy for large financial firms operating on an international scale.

Objectives:

- Undertake qualitative, semi formal interviews, as well as the study of case studies of employees in the financial service industry to,
 - Understand what they believe are the main challenges they face
 - Understand how these challenges affect their work
 - Explore solutions to fight management challenges posed by the above factors

Chapter 3: Methodology

3.1 Philosophical Position

When conducting a research paper, it is significant to determine the author's philosophical position, as it reflects the quality and objectiveness of the study (Groves, 2010). An author's philosophical position can be determined through ontological and epistemological views.

Thus, ontology is the philosophical study of the nature of being, existence, or reality (Smith, 2012, p.47). The ontological stance of this research is grounded in interpretivism, which posits that reality is socially constructed through human interactions and experiences. This perspective is crucial for understanding how different employees within different financial service firms perceive and react to the challenges posed by the digital economy and their (Menz et al., 2021). Interpretivism allows the researcher to capture the subjective truths and varied interpretations of digital strategies and their impacts, recognizing that these are influenced by the individuals' social, cultural, and professional contexts (Schneider, 1997, p 95). This approach is aligned with the study's focus on the various challenges in the digital economy, where cultural and regulatory differences significantly shape business practices.

In complement to the ontological focus on interpretivism, a study of epistemology enhances the philosophical position of the study. Epistemology is the philosophical branch that studies the nature, scope and origins of knowledge (Steup and Neta, 2020). The epistemological stance of this dissertation adopts a constructivist approach. It emphasises the importance of understanding the varied perceptions and knowledge constructions (Matthews, 1993). This focus directly links with financial service firm employees' personal opinion about the digital economy's challenges. This epistemological perspective aligns with the belief that knowledge about the digital economy and its challenges is not merely out there to be discovered but is constructed through human interactions, experiences, and interpretations (Hyde, 2020). This research understands that the provenance of the data is subjective and influenced by the employees' differing priorities, expertise, background and company and is linked to the digital economy's effect on financial service firms. Such philosophical awareness allows for an in-depth

exploration of how these subjective understandings influence firms' strategies and operational responses to digital economic pressures (Hyde, 2020). Thus, this epistemological view not only enriches the analysis by capturing a multitude of experiences and viewpoints but also enhances the understanding of how the data is a sole perspective shaped by various internal and external factors in the realm of financial service firms and the digital economy (Staver, 1998, p. 503).

Additionally, it is crucial to acknowledge that the researcher's own perspectives and prior understanding of the digital economy could influence the interpretation of data. To mitigate this, reflexivity practices were employed, which involve the researcher maintaining an ongoing self-awareness and engaging in critical reflection throughout the research process. This reflexivity helps in identifying any biases or preconceived notions that might affect the analysis and interpretation of the data. For example, having a background in financial technology knowledge might predispose the researcher to view digital transformation positively, which could interfere with the interpretation of participant responses. The researcher's awareness of these potential biases is critical for maintaining the paper's integrity, to ensure that the conclusions drawn are based faithfully on the data collected rather than the researcher's personal views or experiences. This reflective practice is not only about identifying biases but also about understanding how the interaction between the researcher and the participants can influence the data gathering and analysis process, thus striving for a more objective and balanced approach to qualitative research in the field of digital transformation in financial services(Finlay, 2002), (Malterud, 2001)

The chosen philosophical position of this paper is constructivist interpretivism.

3.2 Research Strategy

This dissertation adopts a qualitative research design to explore the complex challenges faced by large financial service firms in the digital economy. The advantage from pursuing qualitative research allows for an in-depth exploration of the perceptions, experiences and strategies of personal perspectives of individuals working within these firms, which could enhance the particularity of this study (Tenny, Brannan and Brannan, 2017). Additionally, this

paper will not focus on numerical data, enabling the analysis of the challenges through diverse non-conceptual lenses and providing a deep understanding of the issues that the digital economy creates at individual and industry levels (Bickman and Rog, 2008). Ultimately, qualitative research brings inherent flexibility, which is critical for adapting to the varied data and complex themes that emerge from the challenges posed by the digital economy on financial service firms.

3.3 Data Collection

3.3.1 Semi-Structured Interviews (SSI)

The primary data for this dissertation has been collected through semi-structured interviews. This method was chosen because it offers a balance between the structured approach of quantitative methods and the open-ended nature of traditional qualitative interviews (Kallio et al., 2016). Semi-structured interviews allow for the exploration of predetermined topics with the flexibility to probe deeper into areas of interest as they emerge during the conversation, providing a structured yet adaptable framework for data collection (Adeoye-Olatunde and Olenik, 2021). This format is particularly effective for exploring complex and nuanced topics such as digital challenges in financial services, where the ability to adapt to the interviewee's insights is crucial. All interviews were done via Microsoft Teams or face to face and recorded on the researchers phone and sent to the researchers computer for data security reasons.

3.3.2 Interview Questions

Interview questions serve to provide personal insight on a specific phenomenon or question (Witz et al., 2001, p. 197). In the scope of this dissertation, the interviews all started with questions focused more on the identity of the interviewee. Then an open question about the main challenges they believe the digital economy poses on financial service firms in order to understand the broader scope. Thus, their response is their own and not influenced by any other factors. The role of the researcher is to simultaneously analyse their response and aim to deepen their opinion and keep the conversation on topic. Gradually, the questions became more precise in order to understand the complexity and whole of the challenges within specific financial

service sectors. Then the questions and responses were grouped thematically: Technological Integration, Data Quality, Specific Financial Service Issues, Cybersecurity, Reputational Trust and Competitiveness Within the Industry.

3.3.3 Sampling and Selecting Participants

The participants for the interviews were chosen using purposive sampling to ensure a diverse representation of perspectives across different levels of management and financial roles within the industry. The selection was strategically focused on individuals who have direct involvement or oversight of digital tools and its implementation within their firms. This approach ensures that the insights gathered are both relevant and informed by direct experience, providing a rich data set for analysis. Plus in order to make sure that this research is not comparative, the participants were chosen due to their work in the United Kingdom (except for Enianny, in order to have an idea about the challenges outside of the U.K.)

3.3.4 Participants Table

<u>Name</u>	<u>Company</u>	<u>Service</u>
David	Tandem Bank	CFO
Teoman	Deloitte	Audit
Enyinna	Initium Analytics Limited	Project Management
Marcus	Kearnsy	Consulting
Kirstie	Deloitte	Financial Service
Jack	BNY Mellon	Data Analyst

3.4 Data Analysis

The dissertation collected data from semi-structured interviews. The data collected from the SSI's will be transcribed and compared to each other in order to undergo thematic analysis, a robust qualitative data analysis method that is well-suited for identifying, analysing, and reporting patterns within the dataset. A thematic analysis is particularly insightful in this context because it allows for the recognition and interpretation of themes that are often nuanced and complex, which is essential in discussions about the digital economy's multifaceted impacts on financial services. The process began by transcribing the interviews, followed by a thorough reading of the transcriptions to gain a deep understanding of the breadth and depth of the content. This initial reading is followed by generating initial ideas from the interviews and linking them to journal articles' (that was read prior) data to form a concise idea. As more data is reviewed, these ideas are grouped into potential themes, which are then reviewed and refined to ensure they represent the dataset coherently and reflect the aim of the dissertation. The final step involves defining and naming the themes that accurately reflect the challenges and strategies discussed by participants and explored in secondary literature. This methodological approach ensures that the analysis remains grounded in the data provided by the participants, allowing for a detailed and nuanced understanding of the digital economy's impact on financial service firms

3.5 Ethical Considerations

Ethical considerations in this research include obtaining informed consent from all participants, ensuring confidentiality, and securely handling data. Participants were informed about the purpose of the research, their rights during the study, and measures taken to protect their information. Each participant was assured that their responses would be anonymized before publication to prevent any personal or professional repercussions if they desired. Additionally, the data is stored securely with access limited to the research team, and will be permanently erased right after the submission of the paper to ensure further privacy. These measures adhere to

the ethical guidelines stipulated by the institutional review board, which approved the study's protocol.

Chapter 4: Findings

After a careful primary data construct method exemplified in 3.4, the findings from the SSI's were categorised into 5 main themes. Each theme delves into distinct challenges financial service firms face due to the digital economy. This section will sequentially explore the themes

4.1 Challenge 1: Digital Technology Integration Challenge

This theme delves into the multifaceted challenges faced by financial service firms in integrating digital technologies into their operational frameworks. These challenges begin at the employee level to the organisational level, spanning from technical issues, cultural shifts, and strategic realignments necessary to embrace digital transformation effectively.

A significant challenge identified by the interviewees is the integration of new digital technologies with traditional systems. Today, many firms struggle to keep up with the rapid technological advancements. They often deal with weak technology unable to process data rapidly which leads to operational inefficiency and upgrading to the latest technology would lead to increased costs.

- Interviewee A: "The Machine Learning and AI systems are often too slow for the amount of Big Data there is to sort, and every time we try to have concise and verified information on a topic, it is often too late."
- **David:** "The cost of overhauling IT infrastructure to accommodate new technologies is high but necessary for staying competitive. However, not everyone can afford them."
- **Kirstie**: "Many traditional systems or data do not coincide with other systems. It's like trying to fit a square cube in a triangle."

Secondly, another major challenge is the skill gap in the workforce regarding emerging technologies. Many firms find it challenging to upskill their current employee and hire new talent with the requisite technological expertise. The grand majority of these firms operate on an international scale which leads to potential skill gaps between colleagues and sites as well.

- **Teoman:** "I really struggled to understand and use technology at first. I felt like I was not prepared and was sort of afraid to not meet the firms requirements and standards"
- Enyinna: "Finding people who are proficient in AI and machine learning is tough. I come from Nigeria and working with digital technologies is really complicated at first because many people do not have access to such technology and educational resources. This can create an imbalance for MNC..."
- Marcus: "I wished I had dug deeper into understanding at least the theoretics of digital technologies or that my university offered courses to prepare us for them."

Furthemore, the adoption of new technologies often pushes the change further than the technology itself and into the corporate culture and business strategies. Some interviewees mentioned that there are cases where management and employees are unsure about the adoption of digital technologies.

- Interviewee A: "There's often a form of pushback when it comes to digital transformation. It's not just a tech upgrade; it's a whole strategic shift that some of our team are not ready for, including me."
- **David:** "Yes, aligning business strategy with digital innovation can be extremely challenging depending on the firm's culture. There's a lot of change, and it takes strong leadership to move things forward. Not everybody is prepared for it, especially in large firms where thousands of employees are involved."

However, despite these challenges, some interviewees shared a positive perspective about digital integration into their financial service firms. This demonstrates the potential benefits and opportunities of successful digital technology integration.

- **Teoman:** "Once you really understand digital technology, you can only agree that they are great for us, they facilitate many of our day to day activities. Digital integration to financial service firms is like peanut butter meeting jam..."
- Interviewee A: "Digital technology is a useful tool for spotting and organising data patterns, unfortunately it is just not developed enough right now."

Altogether, the integration of digital technology presents a complex range of challenges for financial service firms: From technical implementation difficulties with traditional systems to cultural resistance to modernised ways of working, the path to digital transformation/integration is filled with obstacles. However, overcoming these can lead to significant competitive advantages and operational improvements.

4.2 Theme 2: Regulatory Challenges

The second main challenge addressed by the participant is the theme that addresses the significant regulatory challenges that financial service firms face in this digital economy era. As digital technologies evolve, so do the frameworks and requirements set by regulatory organisations. This creates a dynamic environment where firms must continually adapt their compliance strategies.

The digital economy has indirectly exhorted regulators to update and introduce new rules to address emerging risks and protect consumers. Thus, financial service firms must keep up with these changes to avoid sanctions and maintain their reputations.

- **David:** "I mean, over that last 5 to 10 years, regulations around digitalisation have changed a lot. And they will keep changing because as long as digital innovation is ongoing, new regulations will sort of emerge after them."
- Interviewee A: "The new digital initiatives we launched had to comply with multiple regulatory standards before it officially launched. Obviously they change across jurisdiction, so it really shows the complexity of the regulations, especially challenged by digitalisation. This process often slows down our innovation processes."

Secondly, the participants focused a lot on the globalised aspect of financial service firms. This international reach creates additional challenges to these firms to adhere to international regulatory standards, which can vary widely between regions.

- Enyinna: "Nigeria is still an emerging and developing country so it is not very digitised yet. To link this to the regulatory challenges, Nigeria isn't equipped to participate in digital regulatory standards which, yes, can affect other international firms operating in Nigeria. And the political instability doesn't help mitigate this challenge."
- **David:** "We have to ensure that our digital services meet the regulations of the UK. There are a lot of other firms who need to comply with different regulations due to their global operations which can be challenging and increase risks."

Additionally, some interviewees linked the challenge to their financial service sector. They emphasise the fact that staying compliant while continually integrating new technologies like blockchain, artificial intelligence, and big data analytics into financial operations poses unique challenges around data privacy and customer protection.

- **Teoman:** "There are many benefits like I said about incorporating AI into our decision-making processes. But as auditors, it also raises new regulatory concerns, particularly around data privacy and consumer protection."
- David: "Ever since data and private information has been digitised, it has raised regulatory questions. At Tandem, what we are focusing on is multi security systems for customers. We deal with important personal financial data and any leak or cyberthreat would be very damaging so we are focusing on enhancing security systems to comply with regulations."

Overall, regulatory challenges are a significant challenge for financial service firms in the digital economy. As technology continues to evolve, regulations must evolve in response to them.

However, some regulations are not always updated and require financial service firms to adopt a proactive approach.

4.3 Challenge 3: A Precarious Consulting Sector

The interviewee's perspective and response are greatly influenced by their environment as mentioned in 3.1. Therefore, their views on the challenges of financial service firms is more precisely their opinion on the challenges of the specific sector they work in. Following the study of digital integration challenges on large financial service firms, some interviewers more specifically discussed the digital technologies' direct challenges on services like consulting.

The rise of digital and technology-focused consulting firms has intensified competition, endangering traditional consulting services, which takes into account a big part of some of these financial service firms' operations.

- **David:** "Due to digitalisation, many firms can develop their own AI or digital technology and use them for consulting services. It's honestly up to these financial service firms to adapt and navigate their own challenges."
- Marcus: "Now many tech firms are offering consulting services with faster, cheaper, and more data-driven insights due to their modern technology. This undeniably has a negative effect on consulting services and its future."

Thus, financial service firms that focus greatly on their consulting services need to incorporate advanced digital tools and methodologies before they become irrelevant. Assuredly interviewees agreed on the fact that traditional firms must rapidly adopt new technologies to enhance their consulting services to avoid obsolescence. However, as mentioned in 4.1, such advancements come with a great cost and do not guarantee success.

- Marcus: "Yes traditional consulting methods are being challenged. The digital economy creates a pressing demand from clients that want solutions leveraged by AI and real-time data analytics. The issue is that these implementations are costly for traditional firms like us and there's also a risk of competition doing it better than us or having better, more efficient technology."
- **Kirstie:** "Innovation isn't just a buzzword for consulting service; it's now a survival tactic. Consulting services need to integrate digital tools rapidly to stay relevant."

•

Therefore, the increasing demand from clients wanting consultants to provide quicker, more impactful insights and to use advanced analytics and personalised services. The interviewees agreed that the demand is changing and the offer of the changing service standards might not be able to rapidly keep up with it.

- Jack: "The expectation now is that we not only advise but also implement solutions that are robust and tech-driven. The issue with that is we are also trying to implement digital strategies for ourselves and aren't 100% knowledgeable about their efficiency."
- Marcus: "We've had many meetings trying to figure out how we can upgrade our service standards to satisfy an undeniable new demand. The truth is clients are no longer satisfied with standard solutions; they want insights that are tailored, predictive, and strategic and it's our role to provide it for them."

Consequently, this results in consultants being required to continuously hone and refine their knowledge to keep up with the fast-paced changes in technology and market demands in order to ensure quality of services Additionally, interviewees expressed their effort in pushing the boundaries on the mandatory need to educate themselves on the digital economy and its influence over various markets.

• Marcus: "Yes totally, continuous learning is part of the job now more than ever. We constantly have to stay ahead of technology trends to provide relevant advice for our clients, otherwise someone else will do it for us."

Overall, the consulting sector within financial services is facing significant challenges due to the rapid rise of the digital economy. These challenges include coping with increased competition from tech-driven firms called FinTech's, the need for constant and rapid innovation, and evolving client expectations. Consequently, in order for these firms to successfully emerge from this threat it requires not only technological upgrades but also a strategic overhaul of the rapidly evolving markets and client standards.

4.4 Theme 4: Challenges in Auditing

As mentioned in 4.3, the participants gave their views on the challenges posed by the digital economy on large financial service firms, but specifically in the sector they are employed in. Therefore, through a deeper exploration of the challenges within the financial service industry, the auditing sector faces unique challenges amidst the digital economy. This theme will further the knowledge of essential challenges in financial service practices which will primarily be centred around adapting to new technologies, managing large volumes of data, and ensuring the integrity and security of digital systems.

When questioned about the current and future challenges of auditing, interviewees expressed their views on it. They say that the rapid evolution of the digital economy requires auditors to adapt and enhance their practices to effectively audit digital transactions and infrastructure.

Teoman: "There's obviously new companies with completely new models and ways of
operating that are not compatible with traditional auditing methods. Digital born
companies are making it harder for us to do our job right. There is a whole lot more
pressure."

Additionally, the digital economy has opened vast amounts of data, posing significant challenges for auditors in terms of data management and analysis. In almost all interviews, the participants emphasised the challenge posed by the increased volume of information in financial practices.

- **Teoman:** "The quantity of data we have to go over is incredibles sometimes. It is at the end of the day, a good thing to have that much data so you make informative audits. The challenge I would say is the tools to go over that amount of data. I'm pretty sure that there's a lot of tools out there that could help sort out that quantity of data."
- **Kirstie:** "Yes, totally, auditing is being challenged by Big Data. I'd say the main challenge that comes with it is the quality of the data. There is so much data that it is hard to take the qualitative ones from the irrelevant ones."

As mentioned in this theme, digitalisation has rapidly evolved. Parallely, the amount of digital transactions increased proportionally. The increase of digital transactions has opened the doors to another challenge for auditors: To ensure the security and integrity of data. Auditors are now challenged by the rise of digital transactions, and have to maintain the security and integrity of data for their clients.

- **Teoman:** "In terms of cybersecurity, we must always ensure that the data is secure and uncompromised. We have quite a few strict company regulations to limit the risks and ensure security.."
- **Kirstie:** "With all these digital transactions, it is harder to check and audit the accuracy of certain transactions (...) There have been a lot of falsified documents and fraudulent transactions in the last couple years which were done because of the difficulty of tracking them through digitised networks."

The interview with Teoman was also very enlightening in terms of the future of audit and digitalisation. Digital technology has been evolving at an unprecedented rate. Consequently, this could pose a threat to not only the auditing sector, but to auditors themselves. The belief and fear of unemployment increases as the digital economy grows.

• **Teoman:** "Honestly, ever since I felt like I needed to learn more about FinTech and digital technology, I have been linking a lot of the readings to the auditing sector, as it is the one I work in. Without being dramatic, it would be a lie to say that there aren't risks of not needing as many auditors tomorrow. Digitalsaiton can automatise anything and if it continues to evolve the way it has in the next few years, I sincerely believe it could replace humans in auditing. Or a very big part of it."

Similarly to the consulting industry, the auditing sector is facing several significant issues brought by the digital economy. Digitalisation could reshape this whole service industry due to new technologies and an increasing access to Big Data. Such possibilities already compromise data integrity and security and make it harder for companies to maintain regulatory compliance. Auditors and financial service firms must critically address these challenges to maintain a grip on the future possibilities of the audit service sector.

4.5 Theme 5: Reputation and Customer Trust

Ultimately, the final theme represents the overall effect of the prior challenges, regrouping the general impact of the digital economy on specific financial service sectors, employees and the organisation itself. It is important to discuss the reputational stance and customer trust as it answers the short and long term challenges financial service firms face on the organisational level.

The digital economy created a technological race between firms. Financial service firms, no matter their size, must engage in digitalisation. The rapid adoption of digital technologies can both enhance and threaten the reputation of financial service firms. Any missteps in handling digital transitions can lead to challenges that damage customer trust.

- **David:** "Our reputation is increasingly tied to our digital strength. We try to strategise as much as possible building strong reputation and customer centric services and products in order to create competitive advantage."
- **David:** "The shift to online services has made us more visible but also vulnerable. With all the digital tech there is, customer standards increased so it really is our role to do what is necessary to retain them."
- Interviewee A: "We need to be flawless in our digital interactions to maintain our reputation. We communicate a lot with our clients to really understand what they want."

Thus, trust and reputation are the fuels of a financial service firm's success as it reflects the quality of their organisation, service and technology. Digitisation has enforced the necessity for firms to have robust digital technology and regulations as that is what will attract clients and retain them.

- Enyinna: "Our customers trust us with their most sensitive financial information (...) so we have the responsibility to guarantee the security of our digital platforms. This is non-negotiable if we want to maintain that trust we have with our clients ."
- **David:** "Now banking being digital, we've had to invest a lot in security measures for our clients to feel safe and trust us. Otherwise they simply won't use a service they don't trust, especially if it concerns their money".

The idea is furthered by the necessity for financial service firms to adopt effective cybersecurity measures. The participants highlighted the dual opportunity of having strong cybersecurity systems: They are not just for protecting data, but also for building and maintaining trust. Thus, customers need to feel confident that their financial service providers can safeguard their data against potential cyber threats.

- **David:** "We invest heavily in cybersecurity not just to protect data, but to protect our reputation and the trust our customers have in us."
- **Kirstie:** "Every time a customer logs into their account, they need to feel secure. If we lose that trust, regaining it is incredibly difficult and costly."

Finally, the digital economy evolves so rapidly that regulations are often not adapted to the new era. This creates risks that could negatively affect the firm's image as a complacent and passive organisation. Interviewees highlighted the significance of having a proactive approach to regulations in order to mitigate any regulatory compliance threat. Such strategy can attract customers and enhance the overall reputation of the firm when

• **Kirstie:** " Our compliance with international standards and regulations goes beyond the legal requirement. If one incident happens related to regulatory standards, our reputation is the first thing that is affected."

Overall, reputational and trust aspects in financial service firms are not to be taken lightly. With an increasing market competition and rise of other challenges, financial service firms have been established for long but could easily be replaced by newcomers with better reputation and customer retention skills. Therefore, this theme emphasises the need for robust security measures, meticulous regulatory compliance, and a customer-centric approach to digital services.

4.6 Summary of Findings

The findings were structured in a thematic sequence with the aim to explore the challenges posed by the digital economy for financial service firms. The main challenge that arises from the data is the complexity in integrating digital technologies due to the underlying issues that it creates. Additionally, the regulatory questions around the digital economy are still recent, causing a major threat for financial service firms to deal with globalised operations within varying regulatory frameworks. Plus, the threat that digital technology poses to financial services like consulting and auditing emphasises the challenge that the digital economy poses to the financial service industry. However, the participants shared their insights and views on the current and future situation of the industry. To mitigate these challenges and turn them into opportunities, the participants highlighted the necessity to adopt a proactive approach towards these challenges. Furthered by a call to study the digital economy and its potential future to be prepared for any challenges.

Chapter 5: Discussion

The aim of this research was to understand and explore the challenges posed by the digital economy on financial service firms and to study the potential short and long term implications for these company's.

This discussion chapter, logically complements the findings, will analyse the extent of the challenges and the recommendations to strategically overcome these hurdles. This chapter will examine the integration of digital technologies, navigating regulatory challenges, transforming consulting services, and ensuring audit integrity and reputation management, drawing connections to the literature review to synthesise the insights from the research. Then, the chapter will conclude with a proposal for future research in order to contribute to a deeper understanding of the effect of the digital economy in financial services.

5.1 Integrating Digital Technologies

The findings of this research paper correlates with the extensive literature around digital technology integration challenges (Besson and Rowe, 2012). The participants of this study cited the challenge of integrating technology into the business was caused by the conflicting digital tools into outdated or non compatible digital systems. This aligns with the discussion on the disruptive impact of digital technologies, in which digital systems are described as obstacles to innovation due to their incompatibility with newer technology and the high costs associated with updating or replacing them (Besson and Rowe, 2012).

However, contrasting to our literature, the findings indicate that the challenge is not solely technological. The participants argued that the company's culture and skill level of its employees are also deeply rooted into the integration issues. While the literature argues that continuous technological innovation is essential for maintaining competitive advantage, it under emphasises the human aspect that is greatly involved in the process (Chanias, Myers, and Hess, 2019). The

findings greatly discussed the challenges that came with integrating digital technology with the skills of the employees. This highlights a gap in the literature that oftens focuses on the technological aspect rather than the social factors like resistance to change and the need for skill development.

Additionally, while the literature extensively supports the potential of digital technologies to enhance operational efficiency and customer experience, it does not analyse the nuance aspect of its implementation (Niu et al., 2021). Indeed, the dual aspect of digital technology integration was reported by the participants' nuanced views on the topic. They reported mixed feelings on digital integration where the benefits such as increased data accessibility and improved analytical capabilities are often offset by challenges in data security and system compatibility. This shows the complexity in digital integration acknowledged in academic discussions. The qualitative aspect of this research brings this nuance perspective to understand the challenge.

In order to mitigate the challenge of integrating data with financial service organisations, this research advises firms to state clearly what digital technological skills would be desirable based on future graduate job openings. Additionally, digital focused workshops with universities to complement the future generations with added insights, so that once graduated, no matter the financial service, they have digital technology knowledge. This would create an envy to put theories into practice before they are truly confronted to technologies. It would also benefit companies to adopt more digitised centric cultures.

5.2 Regulatory Challenges

A significant finding from the research was the intricate relationship of the regulatory landscape in the digital economy that poses significant challenges for financial firms. Participants like David, expressed their concerns about the rapidly evolving aspect of the digital economy which creates a gap between technological advancements and regulations in the financial service industry. This observation aligns with the complexities highlighted by Beaumier et al. (2020), who discusses the difficulties financial firms face in adapting to diverse regulatory environments.

Additionally, the work of Torous and Nebeker (2017) underscores the need for firms to navigate a web of decentralised financial data regulations, which complicates compliance efforts with customer privacy.

Furthemore, the opposition between the findings of this research and literature is seen through the study of financial service firms' strategy to overcome the challenge. Indeed, while sources like Feinstein & Werbach (2020) suggest that adaptive regulatory strategies are crucial for success in the digital economy, our interviews reveal that firms often adopt reactive rather than proactive approaches. The continuity of this challenge is more severe than it is depicted in literature. This enforces the idea that financial service firms face layered challenges, forcing them to constantly adapt and keep up with regulatory trends and the digital economy advancements. This idea is supported by Salazar et al. (2022) who advocates for harmonised regulatory frameworks to aid firms in managing the challenges presented by the digital economy more effectively.

My findings suggest creating a union of the most influential financial service firms in order to take a proactive approach for regulatory advancements. The world started changing yesterday, and consulting services are starting to realise today the challenges they could face tomorrow.

5.3 The Consulting Sector's Digital Transformation

The digital transformation within the consulting sector clearly represents the challenge these financial service firms are facing. The digital economy is reshaping traditional business models and competitive dynamics. This idea is confirmed in the findings, as participants stress the disruption caused by high cost technology. An article from The Economist, highlights this challenge, as the initial clients of the great consulting firms like Mckinsey, Boston Consulting Group or Deloitte, might be replaceable simply through the acquisition of digital technology. If implemented effectively, many firms from various industries could develop their own digital technology branch and bypass the need of consulting services. This mirrors insights from

Rachana Harish et al. (2020), who discuss how digital business models are disrupting traditional revenue streams and customer engagement practices.

In contrast to the optimism depicted in the literature review, the potential for digital transformation to create value does not limit itself to financial service firms. Consequently, traditional firms face significant threats from these firms that have the capacity to leverage advanced technologies to deliver services more efficiently and at lower costs (The Economist, 2024). This coincides with the argument defended by Bonyuet (2020), who notes that the adoption of digital tools like AI and blockchain by new consulting firms challenges established players to innovate or risk being irrelevant.

Thus, it can be deduced with a high degree of confidence that the consulting sector will face drastic challenges in the mere future. Many firms like Accenture invested billions in digital technology to enhance their quality. However, in order to have a return on such an important investment, financial service firms must innovate their value proposition and try to gain a headstart in this digital economy to anticipate further challenges and be of real service to firms aiming to digitalise. The world started changing yesterday, and consulting services are starting to realise today the challenges they could face tomorrow. It is essential for consulting services to adopt a drastic proactive approach to the digital economy and future innovations.

5.4 Challenges in Audit

A strong concern for financial service firms, that was shared amongst participants, is the role of auditing amongst the digital economy. The challenges that extend beyond traditional practices, changes noted in the finding, align with existing literature. The digitalisation of transactions has made auditors' jobs more challenging. Furthered in the literature, the novelty of financial digital estimation coupled with the extensive amount of online transactions, challenges auditing practices and methods (Cumming, Johan, & Pant, 2019). This idea was shared by some of the auditor participants like Teoman. Thus, this highlights the growing complexity for auditing to successfully navigate the digital economy.

Additionally, the ethics and regulatory questions around digital technology and its effect on auditing practices is significantly discussed in our findings and in literature (Foley, 2024). Participants are doubtful about the opportunities presented by the digital economy. They reported the complexities in implementing these technologies effectively: Issues such as data privacy, the security of digital systems, and the integrity of financial information online were frequently mentioned by both the participants and literature (Nelson & Phillips, 2022; Huber, 2024).

The findings of this research suggest that the integration of new technologies in auditing is not a one-time challenge but a continuous obstacle that will require constant training and updates to audit practices

5.5 Reputation and Trust

Finally, the findings illustrate the reputational and trust keeping challenge financial service firms face in this digital economy. The findings reveal that this is simply due to the globalisation aspect of the firms and the necessity to constantly provide quality in their services. This challenge is echoed in the findings, where participants often explained the consequence of any missteps in delivering a service. These findings are consistent with those of Il Park and Xiao (2021), who noted the critical importance of managing public perception effectively in the digital age, where negative information can spread rapidly and have severe repercussions.

In contrast to the literature's positive/mitigated view of the challenges of digitalisation which often emphasises enhanced customer relationships through digital channels, the findings have once again provided a nuanced reality. Financial service firms operate globally, therefore their reputation is built on the fact of constantly delivering top-tier quality service. However, digitalisation has created widespread information, coupled with significant technological risks from cyber threats to data breaches. Over the last years, financial service firms like the Big Four have been under much scrutiny due to the failure of delivering high level services (The Economist, 2018). This issue aligns with Ahmad (2024), who discussed how technological advancements, while beneficial, also increase the risk of reputational damage.

5.6 Limitations

This research has followed a strict methodology to mitigate risks of limitations, however, some constraints are present within this paper.

The data was limited to a relatively small number of participants, mainly from a specific geographical region (the UK with a single non-UK participant) which may not fully represent global challenges. Additionally, as mentioned in the paper, the digital economy grows at an incredibly rapid pace, therefore, technological change could quickly outdated the findings as new technology and regulatory framework evolves. Plus, the sole reliance on semi structured interviews and primary/secondary literature may be subject to biases, especially in the interview's response and their interpretation.

Chapter 6: Conclusion

This paper is a qualitative research study aimed to understand and explore the complex landscapes of challenges posed by the digital economy that financial service firms face. By doing qualitative semi-structured interviews and an extensive literature review, this study has identified several core challenges such as digital technology integration, regulatory compliance, consulting sector adaptation, auditing challenges, and maintaining reputation and customer trust. The research has highlighted that while digitalization presents unprecedented opportunities for efficiency and global connectivity, it equally imposes critical threats and challenges that require strategic responses.

Undoubtedly, a deeper analysis of the challenges on the global scale is required to truly provide help to the financial service industry. However, the challenges posed by the digital economy are vast and constantly discovered. Thus, financial service firms are currently facing real ongoing challenges posed by the digital economy. This research has the hopes of providing further insight, with rich qualitative data supported by existing literature. It also hopes to have provided a valuable contribution to the digital economy and to financial service firms.

6.1: Further Research

Some potential improvements for further research could be expanding the geographical scope of the study. This could include a comparative study of different economic regions, particularly emerging markets in order to explore the different challenges and/or opportunities. Additionally, longitudinal studies could also provide further insights into the long-term effects of digital transformation strategies adopted by financial firms. Plus, a particular focus on certain technologies could also be of great value for further research.

Chapter 7: Reference List

Adeoye-Olatunde, O.A. and Olenik, N.L. (2021). Research and Scholarly methods: Semi-structured Interviews. Journal of the American College of Clinical Pharmacy, 4(10), pp.1358–1367.

Ahmad, A.Y.A.B. (2024). Ethical implications of artificial intelligence in accounting: A framework for responsible ai adoption in multinational corporations in Jordan. International Journal of Data and Network Science, [online] 8(1), pp.401–414. doi:https://doi.org/10.5267/j.ijdns.2023.9.014.

Akhtar, S., Sheorey, P.A. and Bhattacharya, S. (2021). Cyber Security Solutions for Businesses in Financial Services | IGI Global | IGI Global. [online] www.igi-global.com. Available at: https://www.igi-global.com/pdf.aspx?tid=269448&ptid=254244&ctid=4&oa=true&isxn=978179 9861805.

Ali, A., Warren, D. and Mathiassen, L. (2017). Cloud-based business services innovation: A risk management model. International Journal of Information Management, 37(6), pp.639–649. doi:https://doi.org/10.1016/j.ijinfomgt.2017.05.008.

Avi Yonah, R. (1997). International Taxation of Electronic Commerce. [online] heinonline.org. Available at:

https://heinonline.org/HOL/Page?handle=hein.journals/taxlr52&div=19&g_sent=1&casa_token=&collection=journals .

Baik, B., Johnson, M.F., Kim, K. and Yu, K. (2023). Organisation Complexity, Financial Reporting Complexity, and Firms' Information Environment. SSRN Electronic Journal. doi:https://doi.org/10.2139/ssrn.4413814.

Banţa, V.-C., Rîndaşu, S.-M., Tănasie, A. and Cojocaru, D. (2022). Artificial Intelligence in the Accounting of International Busi-nesses: A Perception-Based Approach. Sustainability, 14(11), p.6632. doi:https://doi.org/10.3390/su14116632.

Barefoot, K., Curtis, D., Jolliff, W., Nicholson, J. and Omohundro, R. (2018). Defining and Measuring the Digital Economy Working Paper. [online] Available at: https://www.bea.gov/sites/default/files/papers/defining-and-measuring-the-digital-economy.pdf.

Beaumier, G., Kalomeni, K., Campbell-Verduyn, M., Lenglet, M., Natile, S., Papin, M., Rodima-Taylor, D., Silver, A. and Zhang, F. (2020). Global Regulations for a Digital Economy: Between New and Old Challenges. Global Policy. doi:https://doi.org/10.1111/1758-5899.12823.

Bencsik, A. (2020). Challenges of Management in the Digital Economy. [online] IJTech - International Journal of Technology. Available at: https://ijtech.eng.ui.ac.id/article/view/4461.

Berman, S.J. (2022). Digital transformation: opportunities to create new business models. Strategy & Leadership, 40(2), pp.16–24. doi:https://doi.org/10.1108/10878571211209314.

Bickman, L. and Rog, D.J. (2008). The SAGE Handbook of Applied Social Research Methods. [online] Google Books. SAGE Publications. Available at: https://books.google.com/books?hl=en&lr=&id=m4_MAwAAQBAJ&oi=fnd&pg=PA214&dq=q

ualitative+study&ots=ZWTIWkHRzo&sig=nabKpscmldRi-h3pdhDsd_ZLYWU#v=onepage&q=qualitative%20study&f=false [Accessed 12 May 2024].

Bisht, D., Singh, R., Gehlot, A., Akram, S.V., Singh, A., Montero, E.C., Priyadarshi, N. and Twala, B. (2022). Imperative Role of Integrating Digitalization in the Firms Finance: A Technological Perspective. Electronics, [online] 11(19), p.3252. doi:https://doi.org/10.3390/electronics11193252.

Blix, L.H., Edmonds, M.A. and Sorensen, K.B. (2021). How well do audit textbooks currently integrate data analytics? Journal of Accounting Education, 55, p.100717. doi:https://doi.org/10.1016/j.jaccedu.2021.100717.

Bonyuet, D. (2020). Overview and Impact of Blockchain on Auditing. The International Journal of Digital Accounting Research, 20(2340-5058), pp.31–43. doi:https://doi.org/10.4192/1577-8517-v20_2.

Brătăşanu, V. (2017). Digital innovation the new paradigm for the financial services industry: Theoretical & Applied Economics. Theoretical & Applied Economics, [online] 24, pp.83–94. Available at:

https://web.p.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=0&sid=0c140059-f682-41a4-a123-b94718b9a4b9%40redis [Accessed 12 May 2024].

Bukht, R. and Heeks, R. (2017). Defining, Conceptualising and Measuring the Digital Economy. [online] papers.ssrn.com. Available at:

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3431732.

Chanias, S., Myers, M.D. and Hess, T. (2019). Digital transformation strategy making in pre-digital organisations: The case of a financial services provider. The Journal of Strategic Information Systems, 28(1), pp.17–33. doi:https://doi.org/10.1016/j.jsis.2018.11.003.

Chatterjee, S., Chaudhuri, R., Vrontis, D. and Giovando, G. (2023). Digital workplace and organisation performance: Moderating role of digital leadership capability. Journal of Innovation & Knowledge, 8(1), p.100334. doi:https://doi.org/10.1016/j.jik.2023.100334.

Constantinou, I. and Kallinikos, J. (2015). New Games, New Rules: Big Data and the Changing Context of Strategy. Journal of Information Technology, [online] 30(1), pp.44–57. doi:https://doi.org/10.1057/jit.2014.17.

Cumming, D.J., Johan, S. and Pant, A. (2019). Regulation of the Crypto-Economy: Managing Risks, Challenges, and Regulatory Uncertainty. Journal of Risk and Financial Management, [online] 12(3), p.126. doi:https://doi.org/10.3390/jrfm12030126.

Dagilienė, L. and Klovienė, L. (2019). Motivation to use big data and big data analytics in external auditing. Managerial Auditing Journal, 34(7), pp.750–782. doi:https://doi.org/10.1108/maj-01-2018-1773.

de Bruin, B. and Floridi, L. (2016). The Ethics of Cloud Computing. Science and Engineering Ethics, [online] 23(1), pp.21–39. doi:https://doi.org/10.1007/s11948-016-9759-0.

Dehnert, M. (2020). Sustaining the current or pursuing the new: incumbent digital transformation strategies in the financial service industry. Business Research. doi:https://doi.org/10.1007/s40685-020-00136-8.

Dounis, N. (2018). GDPR Regulatory Compliance and the Role of Internal Audit: Theoretical & Practical Approach. [online] heinonline.org. Available at:

https://heinonline.org/HOL/Page?handle=hein.journals/iihcj11&div=92&g_sent=1&casa_token=&collection=journals.

Du, H. and Cong, Y. (2010). Cloud Computing, Accounting, Auditing, and Beyond - ProQuest. [online] www.proquest.com. Available at:

 $https://www.proquest.com/openview/f95a268c450c9b305e1a33dca6183f22/1?pq-origsite=gscholar\&cbl=41798\;.$

Empson, L., Muzio, D., Broschak, J.P. and Hinings, C.R. (2015). The Oxford Handbook of Professional Service Firms. [online] Google Books. Oxford University Press. Available at:

https://books.google.co.uk/books?hl=en&lr=&id=RQsWCgAAQBAJ&oi=fnd&pg=PA452&dq=Diversity+and+Inclusion+in+the+Big+Four&ots=yaXo3JsTT3&sig=flwoiIUCwFre22BHROJn-XYxiIk#v=onepage&q=Diversity%20and%20Inclusion%20in%20the%20Big%20Four&f=false

España, S., Gudrún Thórsteinsdóttir, Vijanti Ramautar and Pastor, Ó. (2023). Investigating the links between ethical, social and environmental accounting and strategic management practices through enterprise modelling: technical report. doi:https://doi.org/10.31219/osf.io/xv529.

Feinstein, B.D. and Werbach, K. (2020). The Impact of Cryptocurrency Regulation on Trading Markets. SSRN Electronic Journal. doi:https://doi.org/10.2139/ssrn.3649475.

Fernández-Portillo, A., Almodóvar-González, M., Sánchez-Escobedo, M.C. and Coca-Pérez, J.L. (2022). The role of innovation in the relationship between digitisation and economic and financial performance. A company-level research. European Research on Management and Business Economics, 28(3), p.100190. doi:https://doi.org/10.1016/j.iedeen.2021.100190.

Foley, S. (2024). Why don't auditors find fraud? [online] www.ft.com. Available at: https://www.ft.com/content/9f16dc90-ea79-4abf-92f9-2391b2b73ced [Accessed 14 May 2024].

Fronz, C. (2011). Strategic Management in Crisis Communication: A Multinational Approach. [online] Google Books. Diplomica Verlag. Available at: https://books.google.co.uk/books?hl=en&lr=&id=RCleqJNMrSQC&oi=fnd&pg=PA1&dq=Crisis+Management+in+the+Digital+World+for+MNC&ots=SZSc410JsG&sig=DQzWq11hxZ_yOAQZ6xdk3vd8Bi4#v=onepage&q&f=false.

Gandini, A. (2016). The Reputation Economy: Understanding Knowledge Work in Digital Society. [online] Google Books. Springer. Available at:

https://books.google.co.uk/books?hl=en&lr=&id=2ItPDAAAQBAJ&oi=fnd&pg=PR5&dq=man agement+reputation+digital+economy&ots=KSrQ99g22k&sig=iGXbvrcGSXhn2QSabB7uLCyJz3M&redir_esc=y#v=onepage&q=management%20 reputation%20digital%20 economy &f=false .

Goby, V.P. and Lewis, J.H. (1999). Auditors' Communication Requirements: A Study of Five MNCs in Singapore. Business Communication Quarterly, 62(4), pp.41–52. doi:https://doi.org/10.1177/108056999906200405.

Gow, I.D. and Kells, S. (2018). The Big Four: The Curious Past and Perilous Future of the Global Accounting Monopoly. [online] Google Books. Berrett-Koehler Publishers. Available at: https://books.google.co.uk/books?hl=en&lr=&id=VuReDwAAQBAJ&oi=fnd&pg=PT10&dq=digital+economy+for+the+Big+Four&ots=GouavSCzJ9&sig=zSIEa0uoMv7_nWDRBO4vjA595e 4&redir esc=y#v=onepage&q&f=false.

Grimpe, C., Sofka, W. and Kaiser, U. (2022). Competing for digital human capital: The retention effect of digital expertise in MNC subsidiaries. Journal of International Business Studies. doi:https://doi.org/10.1057/s41267-021-00493-4.

Groves, T. (2010). What makes a high quality clinical research paper? Oral Diseases, 16(4), pp.313–315. doi:https://doi.org/10.1111/j.1601-0825.2010.01663.x.

Huber, N. (2024). Why cyber risk managers need to fight AI with AI. Financial Times. [online] 2 May. Available at: https://www.ft.com/content/7cea944c-2863-43c7-ae9f-c28c76f2f7b7.

Hyde, B. (2020). Constructivist and Constructionist Epistemologies in a Globalised World: Clarifying the Constructs. Globalisation, Comparative Education and Policy Research, 20, pp.125–138. doi:https://doi.org/10.1007/978-94-024-1743-2_8.

Hughes, L., Dwivedi, Y.K., Misra, S.K., Rana, N.P., Raghavan, V. and Akella, V. (2019). Blockchain research, practice and policy: Applications, benefits, limitations, emerging research themes and research agenda. International Journal of Information Management, 49, pp.114–129. doi:https://doi.org/10.1016/j.ijinfomgt.2019.02.005.

Huy, P.Q. and Phuc, V.K. (2021). Accounting Information Systems in Public Sector towards Blockchain Technology Application: The Role of Accountants' Emotional Intelligence in the Digital Age. Asian Journal of Law and Economics, 12(1), pp.73–94. doi:https://doi.org/10.1515/ajle-2020-0052.

Il Park, B. and Xiao, S. (Simon) (2021). Doing good by combating bad in the digital world: Institutional pressures, anti-corruption practices, and competitive implications of MNE foreign subsidiaries. Journal of Business Research, 137, pp.194–205. doi:https://doi.org/10.1016/j.jbusres.2021.08.014.

Islam, Md.S., Farah, N. and Stafford, T.F. (2018). Factors associated with security/cybersecurity audit by internal audit function. Managerial Auditing Journal, 33(4), pp.377–409. doi:https://doi.org/10.1108/maj-07-2017-1595.

Jaiswal, A., Arun, C.J. and Varma, A. (2021). Rebooting employees: upskilling for artificial intelligence in multinational corporations. The International Journal of Human Resource Management, [online] 33(6), pp.1–30. doi:https://doi.org/10.1080/09585192.2021.1891114.

Kallio, H., Pietilä, A.-M., Johnson, M. and Kangasniemi, M. (2016). Systematic methodological review: Developing a framework for a qualitative semi-structured interview guide. Journal of Advanced Nursing, 72(12), pp.2954–2965.

Khor, L.K. and Tan, C.L. (2022). Workforce management in the post-pandemic era: Evidence from multinational companies using grounded theory. Global Business and Organisational Excellence, 42(4). doi:https://doi.org/10.1002/joe.22174.

Kleinman, G., Lin, B.B. and Palmon, D. (2014). Audit Quality. Journal of Accounting, Auditing & Finance, 29(1), pp.61–87. doi:https://doi.org/10.1177/0148558x13516127.

Krieger, F., Drews, P. and Velte, P. (2021). Explaining the (non-) adoption of advanced data analytics in auditing: A process theory. International Journal of Accounting Information Systems, 41, p.100511. doi:https://doi.org/10.1016/j.accinf.2021.100511.

Laudien, S.M. and Pesch, R. (2018). Understanding the influence of digitalization on service firm business model design: a qualitative-empirical analysis. Review of Managerial Science. doi:https://doi.org/10.1007/s11846-018-0320-1.

Lees, M.J., Crawford, M. and Jansen, C. (2018). Towards Industrial Cybersecurity Resilience of Multinational Corporations. IFAC-PapersOnLine, 51(30), pp.756–761. doi:https://doi.org/10.1016/j.ifacol.2018.11.201.

Leiva, R., Ferrero, I. and Calderón, R. (2016). Corporate Reputation in the Business Ethics Field: Its Relation with Corporate Identity, Corporate Image, and Corporate Social Responsibility.

Corporate Reputation Review, 19(4), pp.299–315. doi:https://doi.org/10.1057/s41299-016-0008-x.

Li, C., Feng, W.-X., Han, S., Gupta, S. and Kamble, S. (2022). Digital Adaptive Governance, Digital Transformation, and Service Quality in Logistics Enterprises. Journal of Global Information Management, 30(1), pp.1–26. doi:https://doi.org/10.4018/jgim.309377.

Limna, P., Kraiwanit, T. and Siripipatthanakul, S. (2023). The Growing Trend of the Digital Economy: A Review Article. International Journal of Computing Sciences Research, [online] 7, pp.1351–1361. Available at: http://www.stepacademic.net/ijcsr/article/view/347/140 [Accessed 12 May 2024].

Liu, L.Y. (2020). Do Auditors Help Prevent Data Breaches? - ProQuest. [online] www.proquest.com. Available at: https://www.proquest.com/docview/2424881934?pq-origsite=gscholar&fromopenview=true .

Matthews, M.R. (1993). Constructivism and science education: Some epistemological problems. Journal of Science Education and Technology, 2(1), pp.359–370. doi:https://doi.org/10.1007/bf00694598.

Menz, M., Kunisch, S., Birkinshaw, J., Collis, D.J., Foss, N.J., Hoskisson, R.E. and Prescott, J.E. (2021). Corporate Strategy and the Theory of the Firm in the Digital Age. Journal of Management Studies, [online] 58(7), pp.1695–1720. doi:https://doi.org/10.1111/joms.12760.

Marton, J., Nilsson, F. and Öhman, P. (2023). Auditing Transformation: Regulation, Digitalisation and Sustainability. [online] Google Books. Taylor & Francis. Available at: https://books.google.co.uk/books?hl=en&lr=&id=mkrOEAAAQBAJ&oi=fnd&pg=PA157&dq=

Audit+Quality+in+the+Digital+Age&ots=VkI-9Tl78R&sig=mjHiHXxHiZbtpEd6iRSn_m0Q04 4#v=onepage&q=Audit%20Quality%20in%20the%20Digital%20Age&f=false .

Moizer, P. (1997). Auditor Reputation: The International Empirical Evidence. International Journal of Auditing, 1(1), pp.61–74. doi:https://doi.org/10.1111/1099-1123.00013.

Moore, S. and Seymour, M. (2005). Global Technology and Corporate Crisis: Strategies, Planning and Communication in the Information Age. [online] Google Books. Taylor & Francis. Available at:

https://books.google.co.uk/books?hl=en&lr=&id=dg78GgwJl4QC&oi=fnd&pg=PR13&dq=Communication+in+the+Age+of+Misinformation+for+corporation&ots=vHA0SSOLIf&sig=k2xsHt QaEEWg_rIpezdL_eyO6MI#v=onepage&q=Communication%20in%20the%20Age%20of%20 Misinformation%20for%20 corporation &f=false.

Muller, S. (2021). The New Ecosystem of the Digital Age: Impact of Blockchain Technology on the Accounting Environment and Financial Statement Fraud Detection - ProQuest. [online] www.proquest.com. Available at:

https://www.proquest.com/docview/2674875801?pq-origsite=gscholar&fromopenview=true.

Munoko, I., Brown-Liburd, H.L. and Vasarhelyi, M. (2020). The Ethical Implications of Using Artificial Intelligence in Auditing. Journal of Business Ethics, [online] 167(2), pp.209–234. doi:https://doi.org/10.1007/s10551-019-04407-1.

Neto, J. (2022). Preventing and addressing AML/CFT risks of digital finance: The European regulatory and supervisory perspective. Journal of Financial Compliance, [online] 6(1), pp.30–39. Available at:

 $https://www.ingentaconnect.com/content/hsp/jfc/2022/0000006/00000001/art00004\ .$

Niu, Y., Ying, L., Yang, J., Bao, M. and Sivaparthipan, C.B. (2021). Organisational business intelligence and decision making using big data analytics. Information Processing & Management, [online] 58(6), p.102725. doi:https://doi.org/10.1016/j.ipm.2021.102725.

Olbert, M. and Spengel, C. (2017). International Taxation in the Digital Economy: Challenge Accepted? [online] heinonline.org. Available at: https://heinonline.org/HOL/Page?handle=hein.journals/wldtxjrn2017&div=3&g_sent=1&casa_t

oken=&collection=journals.

Owens, J. (2021). Global Tax Governance. Taxation on Digital Economy, Transfer Pricing and Litigation in Tax Matters (MAPs + ADR) Policies for Global Sustainability. Ongoing U.N. 2030 (SDG) and Addis Ababa Agendas. [online] Google Books. Aranzadi / Civitas. Available at: https://books.google.co.uk/books?hl=en&lr=&id=kYFYEAAAQBAJ&oi=fnd&pg=PT85&dq=O wens .

Pan, G. and Seow, P.-S. (2016). Preparing accounting graduates for digital revolution: A critical review of information technology competencies and skills development. Journal of Education for Business, 91(3), pp.166–175. doi:https://doi.org/10.1080/08832323.2016.1145622.

Prokofieva, M. (2022). Integrating data analytics in teaching audit with machine learning and artificial intelligence. Education and Information Technologies. doi:https://doi.org/10.1007/s10639-022-11474-x.

Rachana Harish, A., Liu, X.L., Zhong, R.Y. and Huang, G.Q. (2020). Log-flock: A blockchain-enabled platform for digital asset valuation and risk assessment in E-commerce logistics financing. Computers & Industrial Engineering, p.107001. doi:https://doi.org/10.1016/j.cie.2020.107001.

Ryoo, J., Rizvi, S., Aiken, W. and Kissell, J. (2014). Cloud Security Auditing: Challenges and Emerging Approaches. IEEE Security & Privacy, 12(6), pp.68–74. doi:https://doi.org/10.1109/msp.2013.132.

Salazar, A., Wentzel, B., Schimmler, S., Gläser, R., Hanf, S. and Schunk, S.A. (2022). How Research Data Management Plans Can Help in Harmonizing Open Science and Approaches in the Digital Economy. Chemistry: A European Journal, 29(9). doi:https://doi.org/10.1002/chem.202202720.

Schneider, S.C. (1997a). Interpretation in Organisations: Sensemaking and Strategy. European Journal of Work and Organisational Psychology, [online] 6(1), pp.93–101. doi:https://doi.org/10.1080/135943297399321.

Schneider, S.C. (1997b). Interpretation in Organisations: Sensemaking and Strategy. European Journal of Work and Organisational Psychology, [online] 6(1), pp.93–101. doi:https://doi.org/10.1080/135943297399321.

Scullen, C. (2020). A New Approach to the Application of Securities Laws to Digital Assets: The Need for Regulators to Adapt. [online] 27(11). Available at: http://www.ruddylaw.com/Content/images/Upload/4411db611d.pdf [Accessed 1 Dec. 2023].

Shi-Ming Huang, S.-M.H., Shi-Ming Huang, C.C. and Chang-ping Chen, T.W. (2020). Application of Machine Learning in Auditing Teaching: A Case Study of Predicting the Audit Report Type of China ST Listed Companies. International Journal of Computer Auditing, 2(1), pp.023–040. doi:https://doi.org/10.53106/256299802020120201003.

Siyal, S., Ahmad, R., Riaz, S., Xin, C. and Fangcheng, T. (2022). The Impact of Corporate Culture on Corporate Social Responsibility: Role of Reputation and Corporate Sustainability. Sustainability, 14(16), p.10105. doi:https://doi.org/10.3390/su141610105.

Smith, B. (2012). Ontology. [online] brill.com. Available at: https://brill.com/display/book/edcoll/9789401207799/B9789401207799-s005.xml.

Staver, J.R. (1998). Constructivism: Sound theory for explicating the practice of science and science teaching. Journal of Research in Science Teaching, 35(5), pp.501–520. doi:https://doi.org/10.1002/(sici)1098-2736(199805)35:5%3C501::aid-tea3%3E3.0.co;2-t.

Steup, M. and Neta, R. (2020). Epistemology. plato.stanford.edu. [online] Available at: https://plato.stanford.edu/entries/epistemology/?utm_medium=podcast&utm_source=bcast&utm_campaign=gold-exchange-with-keith-weiner.

The Economist (2018). KPMG is caught up in scandals but its woes are not existential. [online] The Economist. Available at:

https://www.economist.com/finance-and-economics/2018/08/30/kpmg-is-caught-up-in-scandals-but-its-woes-are-not-existential.

The Economist (2024). Have McKinsey and its consulting rivals got too big? [online] The Economist. Available at:

https://www.economist.com/business/2024/03/25/have-mckinsey-and-its-consulting-rivals-got-to o-big.

Torous, J. and Nebeker, C. (2017). Navigating Ethics in the Digital Age: Introducing Connected and Open Research Ethics (CORE), a Tool for Researchers and Institutional Review Boards. Journal of Medical Internet Research, 19(2), p.e38. doi:https://doi.org/10.2196/jmir.6793.

Witz, K.G., Goodwin, D.R., Hart, R.S. and Thomas, H.S. (2001). An essentialist methodology in education-related research using in-depth interviews. Journal of Curriculum Studies, 33(2), pp.195–227. doi:https://doi.org/10.1080/00220270119026.

Xia, L., Baghaie, S. and Mohammad Sajadi, S. (2023). The digital economy: Challenges and opportunities in the new era of technology and electronic communications. Ain Shams Engineering Journal, [online] p.102411. doi:https://doi.org/10.1016/j.asej.2023.102411.

Zhang, W., Yuan, Y., Hu, Y., Nandakumar, K., Chopra, A., Sim, S. and De Caro, A. (2018). Blockchain-Based Distributed Compliance in Multinational Corporations' Cross-Border Intercompany Transactions. Advances in Intelligent Systems and Computing, pp.304–320. doi:https://doi.org/10.1007/978-3-030-03405-4_20.

Zorio-Grima, A. and Carmona, P. (2019). Narratives of the Big-4 transparency reports: country effects or firm strategy? Managerial Auditing Journal, 34(8), pp.951–985. doi:https://doi.org/10.1108/maj-09-2018-1994.

Chapter 8: Appendix

Figure 1: Participant Consent Form

CONSENT FORM

Title: What are the main challenges posed by the digital economy for financial firms?

Aim: To critically analyse the challenges posed by the digital economy to large financial firms, identifying the impacts on operational models, regulatory compliance, and competitive strategies.

Objectives

- 1. To identify and categorise the main challenges the digital economy presents to the operational, regulatory, and strategic frameworks of financial service firms
- 2. To evaluate the effectiveness of current strategies employed by these firms to navigate the digital transformation, including technological adoption, digital product offerings, and cybersecurity measures.
- 3. To assess the regulatory landscape and its evolution in response to the digital economy, examining how financial firms adapt to compliance requirements while fostering innovation.
- 4. To explore the impact of digital disruption on customer expectations and service delivery within the financial sector
- 5. To gather insights from industry experts through interviews, aiming to understand firsthand the challenges and opportunities perceived within the financial sector due to the digital economy.
- 6. To recommend strategic approaches for large financial firms to effectively address the challenges posed by the digital economy, ensuring sustainable growth and competitiveness.

Please answer the following questions to the best of your knowledge	YES
NO	1 ES
HAVE YOU:	
been given information explaining about the study?	
 had an opportunity to ask questions and discuss this study? 	
 received satisfactory answers to all questions you asked? 	
• received enough information about the study for you to make a deci about your participation?	sion
DO YOU UNDERSTAND: that you are free to withdraw from the study and free to withdraw your data price at any time?	or to final consent □
without having to give a reason for withdrawing?	
• the data I will provide is anonymous?	
I hereby fully and freely consent to my participation in this st	tudy
Participant's signature: Date:	
Name in BLOCK Letters:	

Figure 2: Sample of Interview Questions

Introduction to the Interviewee

- What company do you work for ?
- How long have you been working there?
- What financial service are you in?

Main Discussion Topic

- What do you believe are the biggest challenges posed by the digital economy for financial service firms?
- What is the main challenge you have faced or you faced regarding the digital economy?
- How do you feel your financial service will evolve in the next 5 years? 10 years?
- Looking forward, what do you see as the next big challenge or opportunity for financial service firms in the digital economy?
- How is your firm preparing for future technological advancements or potential disruptions?
- With the increasing amount of customer data being processed, how does your firm ensure data privacy and security?
- How are emerging technologies like blockchain or the Internet of Things (IoT) being integrated into your services?
- How does your firm handle the challenges of regulatory compliance in a digital landscape?
- What recent regulatory changes have impacted your firm the most, and how have you responded?

Figure 3: Primary Data Construct

Figure 4: Approved Ethics Form