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British University
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**Investigating the Effects of Cloud-Based Business
Intelligence Adoption on Services Delivery Quality and
Customers Participation in Private Sector Companies in
UAE**

التحقيق في آثار ذكاء الأعمال (القائم على الحوسبة السحابية)
على جودة تقديم الخدمات ومشاركة العملاء في شركات القطاع الخاص
في الإمارات العربية المتحدة

by

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**Dissertation submitted in partial fulfilment
of the requirements for the degree of
MSc INFORMATION TECHNOLOGY MANAGEMENT
at
The British University in Dubai**

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ABSTRACT

Purpose: This dissertation aims to investigate the effects of cloud-based business intelligence (BI) adoption on service delivery quality and customer participation in private sector companies in the United Arab Emirates (UAE). The study seeks to address the research gap regarding the specific impacts of cloud-based BI in the UAE context and provide practical insights for organizations striving to improve operations and enhance customer experiences.

Methodology: A mixed methods approach will be employed to collect quantitative and qualitative data from a sample of private sector companies in the UAE. The study will focus on two key areas: the impact of cloud-based BI adoption on service delivery quality and its influence on customer participation. The data will be gathered through interviews and surveys, allowing for a comprehensive analysis of the research questions.

Findings: The findings from this study will shed light on the effects of cloud-based BI adoption on service delivery quality and customer participation in private sector companies in the UAE. The study will provide empirical evidence and insights into the specific benefits and challenges associated with adopting cloud-based BI in the UAE context.

Implications: The results of this study will have practical implications for private sector companies in the UAE seeking to enhance their operations and improve customer experiences through cloud-based BI adoption. The findings will inform strategic decision-making processes and provide guidance for organizations looking to optimize service delivery quality and customer engagement.

Originality/Value: This research contributes to the existing body of literature by addressing the research gap in understanding the effects of cloud-based BI adoption on service delivery quality and customer participation in private sector companies in the UAE. The study provides original insights and empirical evidence specific to the UAE context, offering valuable contributions to the field of cloud-based BI implementation and its impacts on organizational performance and customer engagement.

Keywords: Cloud-based business intelligence, service delivery quality, customer participation, private sector companies, United Arab Emirates.

خلاصة البحث

الغرض: التحقيق في آثار ذكاء الأعمال (القائم على الحوسبة السحابية) على جودة تقديم الخدمات ومشاركة العملاء في شركات القطاع الخاص في الإمارات العربية المتحدة. تسعى الدراسة إلى معالجة الفجوة البحثية فيما يتعلق بالتأثيرات المحددة لذكاء الأعمال المستندة إلى مجموعة النظراء في سياق دولة الإمارات العربية المتحدة وتقديم رؤى عملية للمؤسسات التي تسعى جاهدة لتحسين العمليات وتعزيز تجارب العملاء

المنهجية: سيتم استخدام نهج مختلط لجمع البيانات الكمية والنوعية من عينة من شركات القطاع الخاص في دولة الإمارات العربية المتحدة. ستركز الدراسة على مجالين رئيسيين: تأثير اعتماد ذكاء الأعمال المستندة إلى مجموعة النظراء على جودة تقديم الخدمة وتأثيرها على مشاركة العملاء. سيتم جمع البيانات من خلال المقابلات والاستطلاعات، مما يسمح بتحليل شامل لأسئلة البحث.

النتائج: ستسلط نتائج هذه الدراسة الضوء على آثار اعتماد ذكاء الأعمال القائم على السحابة على جودة تقديم الخدمات ومشاركة العملاء في شركات القطاع الخاص في الإمارات العربية المتحدة. ستوفر الدراسة أدلة تجريبية ورؤى حول الفوائد والتحديات المحددة المرتبطة بتبني ذكاء الأعمال القائم على السحابة في سياق دولة الإمارات العربية المتحدة

التداعيات: سيكون لنتائج هذه الدراسة آثار عملية على شركات القطاع الخاص في دولة الإمارات العربية المتحدة التي تسعى إلى تعزيز عملياتها وتحسين تجارب العملاء من خلال اعتماد ذكاء الأعمال القائم على السحابة. ستفيد النتائج في عمليات صنع القرار الإستراتيجي وتوفر التوجيه للمنظمات التي تتطلع إلى تحسين جودة تقديم الخدمة وإشراك العملاء.

القيمة: يساهم هذا البحث في مجموعة الأدبيات الحالية من خلال معالجة الفجوة البحثية في فهم آثار اعتماد ذكاء الأعمال المستند إلى السحابة على جودة تقديم الخدمات ومشاركة العملاء في شركات القطاع الخاص في الإمارات العربية المتحدة. تقدم الدراسة رؤى أصلية وأدلة تجريبية خاصة بسياق دولة الإمارات العربية المتحدة، وتقدم مساهمات قيمة في مجال تنفيذ ذكاء الأعمال القائم على السحابة وتأثيراته على الأداء التنظيمي ومشاركة العملاء.

الكلمات المفتاحية: ذكاء الأعمال القائم على السحابة، جودة تقديم الخدمة، مشاركة العملاء، شركات القطاع الخاص، الإمارات العربية المتحدة.

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Chapter 1 Introduction

1.1 Introduction

In today's rapidly evolving business landscape, the effective utilization of data and technology has become crucial for organizations aiming to gain a competitive edge. Cloud-based business intelligence (BI) solutions have emerged as powerful tools that enable companies to enhance the quality of the provided services and increase the customer participation. The United Arab Emirates (UAE) is a dynamic economy known for its emphasis on technology and innovation. Private sector companies in the UAE are increasingly recognizing the potential of cloud-based BI adoption to enhance their operations and improve customer experiences. Cloud-based BI allows organizations to gather, analyze, and visualize data from various sources in real-time. It provides advanced analytics capabilities that go beyond traditional reporting, enabling companies to uncover valuable insights and trends that can drive informed decision-making. By utilizing these insights, organizations can enhance the quality of the services they deliver to customers, meeting their evolving needs and preferences. Moreover, cloud-based BI solutions facilitate increased customer participation. By understanding customer behavior, preferences, and feedback through data analysis, companies can tailor their services to better align with customer expectations. This personalized approach fosters stronger customer engagement, loyalty, and satisfaction.

1.2 Study Overview

This research study focuses on investigating the effects of cloud-based BI adoption on service delivery quality and customer participation in private sector companies in the UAE. By exploring the specific impacts of cloud-based BI adoption, this study aims to provide valuable insights for organizations seeking to optimize their operations and enhance customer engagement. The study is situated within the unique context of the UAE, where technological advancements and innovation have significantly influenced business practices. To achieve the research objectives, a mixed-methods approach will be employed. Quantitative data will be collected through surveys to assess the extent of cloud-based BI adoption, services delivery quality, and customer participation in private sector companies. Qualitative data will also be

gathered through interviews and focus groups to gain deeper insights into the factors influencing cloud-based BI adoption and its impact on services delivery quality and customer participation.

1.3 Statement of the Problem

The adoption of cloud-based business intelligence (BI) has gained significant attention to enhance services delivery quality and increase customer participation in private sector companies in the United Arab Emirates (UAE). However, there is a need for comprehensive research to investigate the effects of cloud-based BI adoption on these key aspects in the UAE context. Despite the recognition of the UAE as a dynamic economy that emphasizes technology and innovation, there is limited empirical evidence on the specific impact of cloud-based BI adoption on services delivery quality and customer participation within private sector companies in the UAE. This research aims to address this gap by examining the effects of cloud-based BI adoption on services delivery quality and customer participation in private sector companies in the UAE. By exploring this relationship, the objective of the research is to offer valuable understandings regarding the advantages and difficulties connected with the adoption of cloud-based business intelligence (BI). The focus is on how this adoption can improve the quality-of-service delivery and encourage greater customer engagement. Furthermore, the research will identify key factors and strategies that contribute to the successful implementation and utilization of cloud-based BI solutions in the UAE private sector context. The findings of this study will have significant implications for private sector companies in the UAE, as they strive to improve their services delivery quality and increase customer participation. Furthermore, the study will add to the current knowledge base concerning the adoption of cloud-based business intelligence (BI), specifically within the United Arab Emirates (UAE) context. As a result, it will enhance our comprehension of how this technology affects organizational performance and customer engagement, thereby enriching the existing understanding in this area.

1.4 Rationale of the Study

The rationale behind conducting this study lies in the need to understand the specific impacts of cloud-based BI adoption on service delivery quality and customer participation in private sector companies in the UAE. By exploring this topic, the study aims to provide practical insights that can assist organizations in optimizing their operations, improving service quality, and fostering greater customer engagement. This research is significant as it contributes to the existing body

of knowledge on cloud-based BI adoption and its effects on organizational performance and customer experiences.

1.5 Study Purpose and Questions

This study aims to examine the impact of adopting cloud-based business intelligence (BI) on both service delivery quality and customer participation in private sector companies operating in the UAE. The study seeks to address the following research question:

- How does the adoption of cloud-based business intelligence impact service delivery quality in private sector companies in the UAE?
- How does the adoption of cloud-based business intelligence impact the engagement of customers participation in private sector companies in the UAE?
- How does cloud-based business intelligence adoption impact the overall business performance and success of private sector companies in the UAE?

1.6 Delimitations

This study is specifically centered on private sector companies operating in the UAE, aiming to explore the impact of adopting cloud-based business intelligence (BI) on service delivery quality and customer participation. It is important to note that the study does not encompass public sector organizations, nor does it analyze the effects of cloud-based BI adoption in countries other than the UAE. It is crucial to acknowledge these limitations to maintain a clear understanding of the study's scope and contextual boundaries.

1.7 Structure of the Study

The structure of this dissertation is as follows: Chapter one introduces the study, highlighting its purpose and significance. Chapter two presents a comprehensive literature review, examining relevant theories, studies, and frameworks related to cloud-based BI adoption, service delivery quality, and customer participation. In Chapter three, the research methodology is presented, encompassing the research design, methods employed for data collection, and techniques employed for data analysis. Chapter four presents the findings of the study, analyzing both qualitative and quantitative data. Chapter five delves into the implications derived from the findings, emphasizing the importance of the study, and providing recommendations that organizations can consider. Finally, Chapter six concludes the dissertation by summarizing the key findings, discussing the limitations of the study, and suggesting avenues for future research.

Chapter 2 Literature Review

This chapter provides a comprehensive review of previous research on the impact of cloud-based business intelligence adoption, specifically on service delivery quality and customer participation. Additionally, related studies that aim to broaden the understanding of this subject are also acknowledged. The chapter commences by introducing a conceptual framework that presents the fundamental concepts associated with the research. Subsequently, a discussion on the theoretical framework is presented, providing support and context for the study. Moreover, the chapter includes a recent literature review covering various aspects such as the definition of cloud-based business intelligence, its benefits, and the potential effects of its adoption on service delivery quality. It also explores the possible impact of cloud-based BI on customer participation, including its influence on customization, engagement, and loyalty. Furthermore, the chapter discusses the effects of cloud-based BI adoption on private sector companies' business performance and success, specifically its impact on competitiveness. The literature review will serve as the foundation for the study's data collection and analysis, helping to identify the key variables and relationships that need to be explored in greater depth. Finally, the chapter identifies gaps in the literature on this topic, particularly in relation to private sector companies in the UAE, which are explicitly discussed at the end.

2.1 Conceptual Framework

The primary objective of this study is to examine the impact of adopting cloud-based business intelligence on the quality-of-service delivery and customer participation in private sector companies based in the UAE. It relies on a conceptual framework that incorporates the following key elements: Cloud-based business intelligence, Service delivery quality and Customer participation.

Cloud-Based Business Intelligence is the first element of the conceptual framework is the concept of cloud-based business intelligence (BI), which refers to the use of cloud computing technology to store, process, and analyze data for business purposes. This element will be defined and explored in the literature review, with an emphasis on its benefits and potential impact on private sector companies. According to Olszak (2014), Cloud-based BI refers to the use of cloud computing technology to deliver business intelligence services. It involves accessing and analyzing data stored on remote servers through the internet, without the need for

on-premises infrastructure and software. The use of cloud-based BI allows for scalability, flexibility, and cost-effectiveness, as well as real-time data access from anywhere with an internet connection. Additionally, it allows businesses to concentrate on their primary strengths and delegate the technical aspects of data storage and management to cloud service providers.

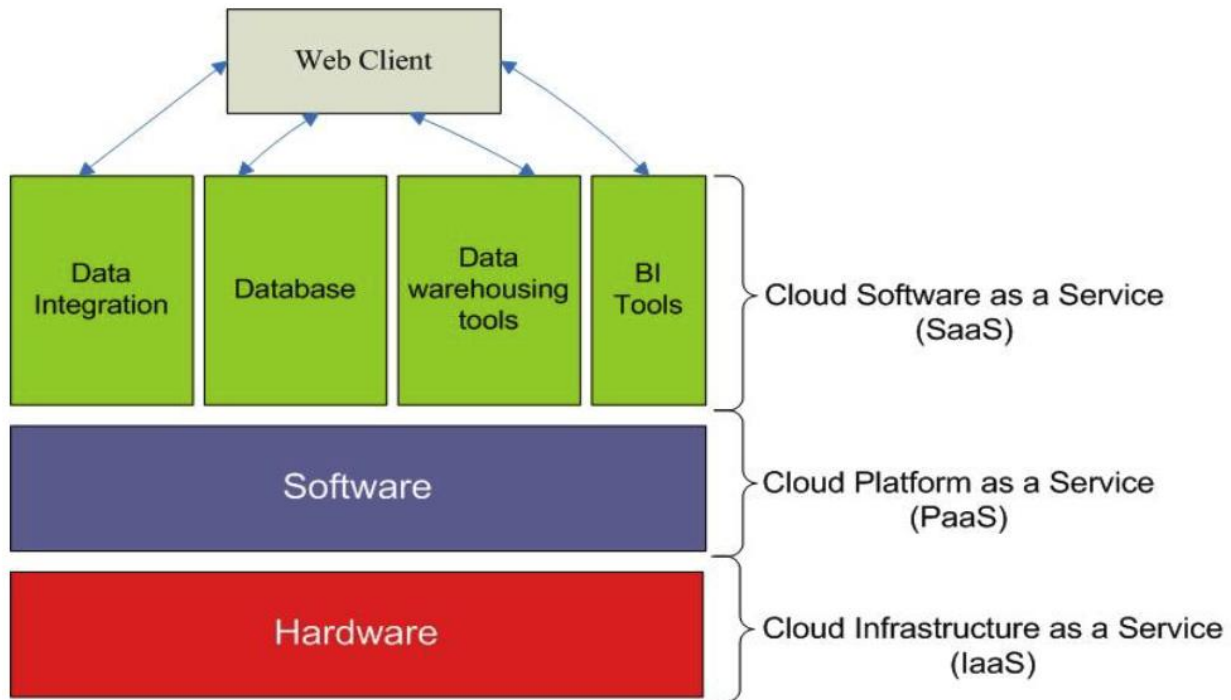


Figure 1: Cloud-based BI Architecture, Source (Kasem & Hassanein 2014)

Cloud-based BI involves the use of cloud resources such as computing power, storage, and networking to support BI activities, such as data warehousing, data analytics, data visualization and reporting. The data is stored in the cloud, and users can access it from anywhere and on any device, making it more flexible and cost-effective than traditional on-premises BI solutions (Kazeli 2014). According to Kasem & Hassanein (2014), Cloud BI allows organizations to access BI services on demand, without the need to invest in expensive infrastructure and software. Cloud BI services can include data integration, data warehousing, data mining, reporting, and analytics. The use of cloud BI can provide organizations with cost savings, scalability, and flexibility in accessing and analyzing their data. The conceptual framework also considers moderating variables that could affect the relationship between Cloud-based Business Intelligence (CBBI) adoption, service delivery quality, and customer participation.

These moderating variables may include organizational factors such as culture, leadership, and resources, as well as environmental factors such as competition, regulation, and technology (Suh & Han 2002). The final element of the conceptual framework is the impact of cloud-based BI adoption on the business performance and success of private sector companies. Cloud-based business intelligence has a significant importance in enhancing organizational competitiveness. There is a need for businesses to embrace cloud-based BI to gain a competitive edge by leveraging real-time insights and data-driven decision-making (Gurjar & Rathore 2013). Using cloud business intelligence improves business maturity. Cloud-based BI can improve company competitiveness and drive long-term success by providing real-time access to data and insights, enabling faster and more informed decision-making, and optimizing resource allocation. By leveraging cloud-based BI, companies can better understand market trends, customer behavior, and competitive dynamics, and adjust their strategies accordingly to stay ahead of the competition (Elshibani 2022). In conclusion, the proposed conceptual framework offers a holistic comprehension of the potential impacts of adopting cloud-based business intelligence on both the quality of service delivery and customer participation within private sector companies operating in the UAE.

2.2 Theoretical Framework

In this section, we discuss the theoretical frameworks that will guide our study of the effects of cloud-based business intelligence adoption on service delivery quality and customer participation in private sector companies in UAE. The theoretical framework is used as a model to create the research questions and approach. Several researchers have commented that the theoretical framework provides a shared perspective or framework for understanding the problem, and for selecting appropriate research methods, analytical tools, and processes for the research investigation (Ravitch & Carl 2019).

To develop a comprehensive understanding of the complex factors that influence the impact of cloud-based business intelligence adoption on service delivery quality and customer participation, we plan to use three theoretical frameworks, the Technology Acceptance Model (TAM), The SERVQUAL framework and Service-Dominant Logic (SDL) framework.

The Technology Acceptance Model (TAM) is a well-established framework that explains how users' acceptance and usage of technology are influenced by their perceived usefulness and ease

of use (Davis, 1989). TAM will be useful in identifying key variables that influence the adoption of cloud-based business intelligence, such as perceived usefulness, perceived ease of use, and attitude towards the technology. The SERVQUAL framework is typically used to identify areas of strength and weakness in service delivery quality and to develop strategies for improving service quality. The framework consists of five dimensions: tangibles, reliability, responsiveness, assurance, and empathy (Parasuraman, Zeithaml & Berry 1985). The last framework Service-Dominant Logic (SDL) will be used for measuring customer participation behavior. Service-Dominant Logic (SDL) is a theoretical framework that views service as a process of co-creation between the service provider and the customer. According to SDL, the value of a service is created through the interactions between the service provider and the customer, rather than being inherent in the service itself. This means that the customer plays an active role in creating value, and the service provider should focus on understanding and responding to the customer's needs and preferences (Grönroos & Gummerus 2014). The use of TAM, SERVQUAL and SDL frameworks will enable us to explore the factors that influence the acceptance and usage of cloud-based BI, as well as the impact of cloud-based business intelligence adoption on service delivery quality and customer satisfaction in the private sector in UAE.

2.2.1 Technology Acceptance Model (TAM)

A potential theoretical approach for examining the literature related to the primary goal of studying cloud-based business intelligence and its advantages could be the Technology Acceptance Model.

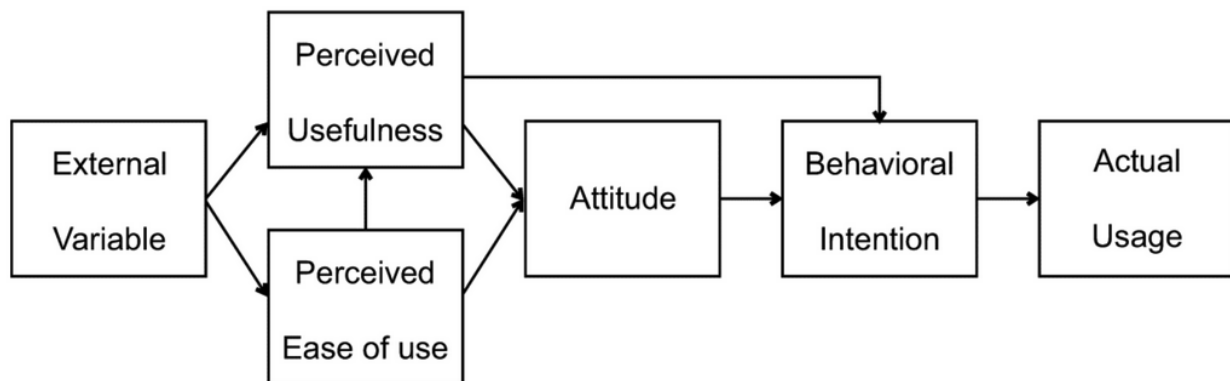


Figure 2: Technology Acceptance Model, Source (Davis, 1989)

TAM (Technology Acceptance Model) focuses on two primary factors that influence an individual's willingness to adopt new technology: perceived usefulness and perceived ease of use (Boot & Charness, 2016). As elucidated by Davis, Bagozzi & Warshaw (1989), the first factor, "perceived usefulness," pertains to an individual's personal belief that utilizing a specific application system will enhance their job performance within an organizational setting. The second factor, "perceived ease of use," refers to the extent to which an individual anticipates that the target system will be user-friendly. These two factors play a crucial role in shaping consumers' attitudes towards adopting new technology, ultimately influencing their intention to adopt and utilize the technology. The Technology Acceptance Model (TAM) can assist in comprehending how employees and customers perceive the benefits and ease of use of cloud-based business intelligence, and how these views impact their acceptance and utilization of the technology. Through the utilization of TAM, we can identify key factors that impact the adoption of cloud-based business intelligence, including perceived usefulness, ease of use, and attitude towards the technology. Business Intelligence (BI) system developers and managers should focus on enhancing the perceived usefulness and ease of use of their systems to increase user adoption. Additionally, the study highlights the importance of considering user attitudes and intentions towards technology when implementing BI systems. The relevance and applicability of the TAM model in the context of BI systems, and its potential to improve the success of BI projects (Pettersson & Arvidsson 2012). As Kasemsap (2016) explains, the TAM model has been employed in the domain of Business Intelligence (BI), encompassing two key factors: perceived usefulness and perceived ease of use. These factors are instrumental in forecasting users' intentions to utilize BI systems. Perceived usefulness gauges users' belief in the ability of BI systems to aid in achieving their objectives, while perceived ease of use assesses users' perception of the system's ease of operation. The TAM model's perceived usefulness factor remains a crucial factor in predicting the adoption of technology, including cloud-based business technology. The organizations should focus on enhancing the perceived usefulness of cloud-based BI systems to increase user adoption (Cengiz & Bakırtaş 2020). Investigating the first factor of TAM model (usefulness), As discussed in Al-Aqrabi et al., (2015), There are several benefits of cloud-based BI, including the ability to handle large volumes of data, scalability, cost-effectiveness, and improved accessibility to information. Cloud-based BI also enables real-time data analysis and enhances collaboration and decision-making processes.

The authors also suggest that cloud-based BI has the potential to democratize access to business intelligence, as smaller organizations can benefit from the technology without having to invest in expensive infrastructure. Some advantages of utilizing cloud-based big data analytics for business intelligence include cost savings, scalability, faster deployment, and easy access to data from multiple sources. Cloud-based BI also allows for real-time data analysis, which enables organizations to make timely and informed decisions (Balachandran & Prasad 2017). Regarding to the second factor of TAM model, the ease of use of BI systems is influenced by various factors, such as the user interface design, system functionality, and user training. BI systems with a user-friendly interface and comprehensive functionality are more likely to be adopted by users. Additionally, providing adequate training to users can also improve the ease of use of BI systems, thereby increasing their adoption rate (Jaradat et al., 2022). Deploying big data analytics in the cloud for BI can provide significant benefits, including ease of use, scalability, and flexibility (Balachandran & Prasad 2017). Cloud-based BI solutions can provide greater ease of use compared to traditional on-premises solutions, as they can offer a more user-friendly interface and require less technical expertise from users (Ouf & Nasr 2011).

In conclusion, based on the Technology Acceptance Model (TAM) theoretical framework, cloud-based business intelligence (BI) adoption can provide greater usefulness and ease of use, which can positively influence an organization's attitude towards using cloud-based BI solutions. The TAM model suggests that users are more likely to adopt technology that they perceive to be useful and easy to use. Cloud-based BI solutions can provide greater usefulness by offering real-time data insights, cost savings, and faster deployment times. In addition, cloud-based BI solutions can be more user-friendly and easier to use, which can lead to a more positive attitude towards using them. This positive attitude can lead to increased behavioral intention to use cloud-based BI solutions, ultimately boosting the organization's direction towards implementing cloud-based BI intelligence solutions. TAM framework can be utilized to develop interview questions that are consistent with the dimensions of the TAM framework. This would enable us to achieve the first objective, which is to investigate the benefits and advantages associated with cloud-based solutions. By aligning the interview questions with the TAM framework, the study aims to gain insights into how users perceive the usefulness and ease of use of cloud-based solutions, which are key factors that influence technology adoption and usage.

2.2.2 SERVQUAL Framework

Introduced by Zeithaml, Parasuraman, and Berry in 1985, the SERVQUAL model is a widely utilized framework for evaluating service quality. It operates as a gap model that compares customers' expectations of service quality against their actual perceptions. The SERVQUAL model has found widespread application across various service industries as a means to assess service quality and pinpoint areas requiring enhancement. According to Ladhari (2009), the SERVQUAL model has significantly advanced the field of service quality research by providing a comprehensive and standardized approach to measure service quality. It has been extensively employed in diverse sectors such as healthcare, banking, and education. To evaluate IT service performance, Kang & Bradley (2002) conducted a survey among IT users in a large organization, utilizing the SERVQUAL model to assess users' perceptions and overall satisfaction with IT services.

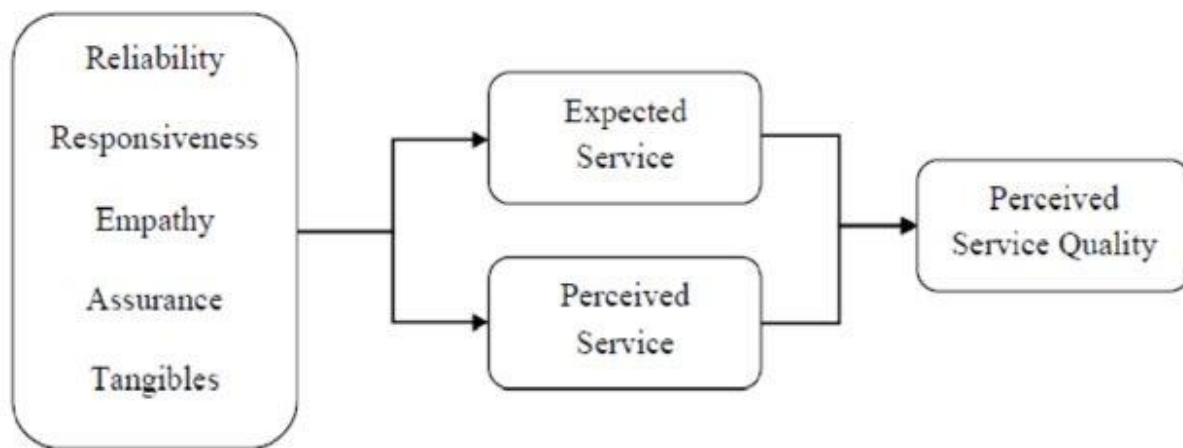


Figure 3: SERVQUAL model, Source (Parasuraman et al., 1988)

According to Coulthard (2004), The model consists of five dimensions: tangibles, reliability, responsiveness, assurance, and empathy. Reliability refers to the ability of the service provider to deliver the service accurately and dependably. Responsiveness refers to the willingness of the service provider to provide prompt and helpful service. Empathy refers to the extent to which service providers offer caring and personalized attention to customers. Assurance refers to the knowledge and courtesy of service providers and their ability to convey trust and confidence.

Tangibles encompass the physical aspects of the service, such as facilities, equipment, and personnel. There is an importance of using the SERVQUAL model to detect disparities between customers' anticipated service quality and their actual perceptions, and to prioritize areas for improvement (Bryslant & Curry 2001). The difference between customers' expectations and perceptions on each dimension is used to calculate a gap score, which reflects the degree of service quality shortfall or excess (Saini & Singh 2018).

Within the framework of the SERVQUAL model, reliability pertains to the capacity to consistently and accurately deliver the service. This dimension encompasses aspects such as the consistency of service provision, fulfillment of promised services, and the level of accuracy and precision in service delivery (Bryslant & Curry, 2001). Referring to Asubonteng et al., (1996), the responsiveness dimension is concerned with issues such as the willingness of service providers to respond to customers' needs, the speed and timeliness of service delivery, and the overall level of customer service. The empathy is concerned with issues such as the level of personalized service, the ability of service providers to understand customers' unique circumstances and preferences, and the overall level of customer care. The assurance dimension of the SERVQUAL model focuses on factors such as the technical competence and professionalism of service providers, the reliability and accuracy of information provided to customers, and the degree to which service providers are responsive and able to provide effective support and guidance to customers. IT service providers need to focus on building trust and confidence among their users. (Kang, H., & Bradley, G. 2002). The tangible dimension refers to the physical aspects of the service delivery that customers can see, touch, or experience. These tangible aspects can include the appearance and cleanliness of the physical environment, the quality and condition of equipment, and the appearance and behavior of service personnel (Naik, Gantasala & Prabhakar 2010).

The expected service dimension in the SERVQUAL model refers to the level of service quality that customers expect to receive from a service provider. This dimension is based on the customer's past experiences with the same or similar services, as well as their expectations of what a service provider should deliver in terms of quality (Naik, Gantasala & Prabhakar 2010). On the other hand, Perceived service refers to the customer's subjective evaluation of the quality of the service they receive, based on their expectations and actual experiences with the service provider (Asubonteng et al., 1996).

In summary, the SERVQUAL model proves to be a valuable conceptual framework for assessing service quality in the adoption of cloud-based business intelligence. By employing the five dimensions of SERVQUAL (tangibles, reliability, responsiveness, assurance, and empathy), it becomes feasible to evaluate the service quality offered by private sector companies in the UAE when incorporating cloud-based BI. This framework can provide a comprehensive and holistic understanding of how cloud-based BI adoption affects service quality and customer satisfaction and can help identify areas for improvement and optimization in the service delivery process. the SERVQUAL model can also help in formulating effective survey to collect data on service quality delivery. By incorporating the five dimensions of SERVQUAL into the design of the questions and surveys, we can ensure that they are comprehensive and cover all aspects of service quality that are relevant to our research topic.

2.2.3 Service-Dominant Logic (SDL) framework

The concept of Service-Dominant Logic (SDL) highlights the significance of value co-creation between service providers and customers. It is a framework that stresses that customers are not merely recipients of services, but they play an active role in creating value during the service delivery process. This implies that the service provider should prioritize comprehending and addressing the customer's requirements and inclinations to collaboratively create value (Wilden et al., (2017).

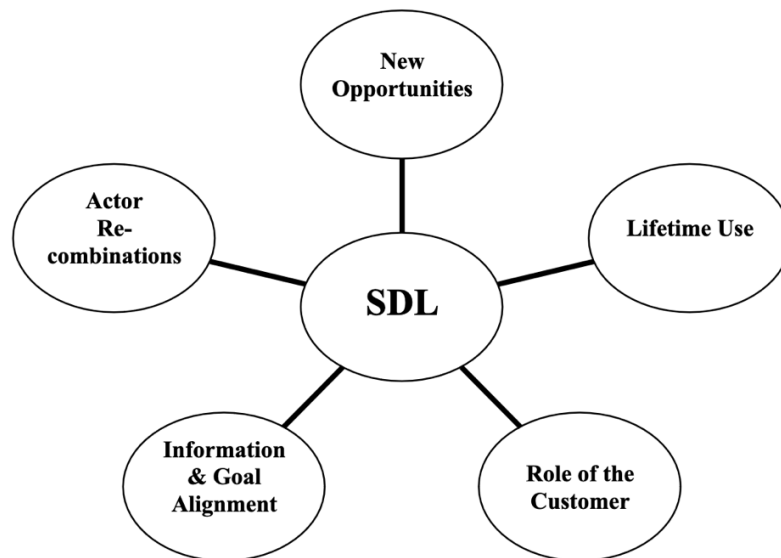


Figure 4: Service-Dominant Logic, Source (Callaway, S. K., & Dobrzykowski, D. D. 2009)

Referring to Edvardsson, B., Ng, G., Min Choo, Z., & Firth, R. (2013), SDL can be used to explore the interactions between the service provider and the customer, and how value is co-created during these interactions. It can also be used to analyze the relationships between service providers and customers, and the factors that influence customer participation behavior (CPB). SDL enables a customer-centric approach to service innovation. By prioritizing the co-creation of value with customers, service providers can better understand their needs and preferences, leading to more effective and relevant service innovations. Another benefit of SDL is that it encourages a focus on continuous improvement and learning. By viewing services as dynamic and co-created, service providers can continuously seek feedback from customers and incorporate it into future service innovations. This can lead to a more agile and adaptable approach to service innovation. (Ordanini & Parasuraman 2011). One of the main benefits highlighted by Wilden et al., (2017), is that SDL promotes a shift from a product-centric to a service-centric mindset. This allows firms to focus on delivering value through the co-creation of service experiences with customers, rather than solely on the tangible features of products. Another benefit of SDL is that it emphasizes the importance of relationships and networks in the creation and delivery of value. By viewing services as co-created through ongoing interactions between customers and service providers, SDL encourages a more collaborative and relational approach to marketing (Lusch & Vargo 2014). SDL emphasizes the importance of co-creating value with customers through ongoing interactions and collaborations. Organizations can implement SDL by focusing on understanding and responding to customer needs and preferences and working with them to co-create value. Besides that, SDL requires a shift from a product-oriented to a service-oriented mindset. Organizations can implement SDL by prioritizing the delivery of service experiences and focusing on building long-term relationships with customers (Randall, Pohlen & Hanna 2010).

To summarize, implementing Service-Dominant Logic (SDL) requires a focus on the customer, service-oriented thinking, collaboration, continuous improvement, and sustainability. In our study, preparing effective survey questions is important to capture the intricacies of service interactions. These surveys should also consider the broader social and environmental context of value co-creation. We plan to use SDL to develop survey questions to measure the impact of cloud-based business intelligence on customer participation, including its potential influence on customization, engagement, and loyalty in the private sector.

2.3 Cloud-based Business Intelligence and Its benefits

According to Olszak (2014), Cloud-based BI refers to the use of cloud computing technology to deliver business intelligence services. It involves accessing and analyzing data stored on remote servers through the internet, without the need for on-premises infrastructure and software. The use of cloud-based BI allows for scalability, flexibility, and cost-effectiveness, as well as real-time data access from anywhere with an internet connection. It also enables businesses to focus on their core competencies and leave the technical aspects of data storage and management to cloud service providers. Cloud-based BI involves the use of cloud resources such as computing power, storage, and networking to support BI activities, such as data warehousing, data analytics, reporting, and data visualization. The data is stored in the cloud, and users can access it from anywhere and on any device, making it more flexible and cost-effective than traditional on-premises BI solutions (Kazeli 2014).

Regarding the benefits of Cloud-based BI, As discussed in Al-Aqrabi et al., (2015), There are several benefits of cloud-based BI, including the ability to handle large volumes of data, scalability, cost-effectiveness, and improved accessibility to information. Cloud-based BI also enables real-time data analysis and enhances collaboration and decision-making processes. The authors also suggest that cloud-based BI has the potential to democratize access to business intelligence, as smaller organizations can benefit from the technology without having to invest in expensive infrastructure. Similarly, Balachandran & Prasad (2017) demonstrated some advantages of utilizing cloud-based big data analytics for business intelligence including cost savings, scalability, faster deployment, and easy access to data from multiple sources. Cloud-based BI also allows for real-time data analysis, which enables organizations to make timely and informed decisions.

In conclusion, cloud-based BI adoption offers several benefits for organizations, including the ability to adjust to changes in demand or usage, cost savings due to the elimination of hardware expenses and a reduction in maintenance costs, increased availability, and the capability to analyze data in real-time. These advantages can ultimately lead to a competitive edge in the market and improved organizational performance. The literature suggests that cloud-based BI adoption has the potential to improve service delivery quality and customer participation in various industries.

2.4 The impact of cloud-based BI adoption on service delivery quality

Several studies have investigated the impact of cloud-based Business Intelligence (BI) adoption on service delivery quality in different private sector industries. For instance, the study by Miah (2018) examines the impact of cloud-based BI on healthcare decision-making and service delivery. Cloud-based BI has the potential to enhance the quality of healthcare services by providing timely and accurate information for decision-making. Cloud-based BI also allows for better collaboration among healthcare providers, leading to improved communication and coordination of care. The study suggests that the use of cloud-based BI in healthcare can improve patient outcomes and reduce healthcare costs. The use of cloud-based BI enhanced the service delivery of community care services by providing real-time data analysis, allowing for proactive and informed decision-making, and enabling service providers to monitor and improve service quality. Additionally, the system's cloud-based architecture allowed for scalability and cost-effectiveness, making it a viable solution for resource-constrained healthcare organizations (Eze, Kuziemyky & Peyton 2018). The collaboration of business intelligence and cloud computing can have a positive impact on service quality delivery. By providing real-time data analysis, cloud-based BI can help organizations identify and address issues in service quality delivery, leading to improved customer satisfaction and loyalty (ASLAN, DEMİRAG & AKKARTAL 2021). Referring to Gao & Meng (2022), The adoption of cloud-based services can significantly improve service quality in small and medium-sized businesses (SMBs). Cloud-based services offer greater scalability, flexibility, and cost-effectiveness, allowing SMBs to provide better and more efficient services to their customers. The utilization of cloud-based services has the potential to enhance customer satisfaction through various means, such as facilitating quicker response times, offering increased accessibility to information, and delivering personalized service experiences.

Business intelligence can help improve service quality through customer behavior monitoring and cognitive systems. By analyzing customer data, BI systems can identify patterns and trends in customer behavior, allowing companies to tailor their services to meet customer needs and preferences. BI systems can also provide real-time data analysis, enabling companies to quickly respond to customer feedback and address any issues or concerns.

Additionally, cognitive systems can be used to automate and optimize service delivery processes, improving efficiency and reducing errors. BI can help companies better understand

their customers and provide more personalized and efficient services, leading to improved service quality and customer satisfaction (Dinges, at al., 2015)

Overall, Cloud-based BI adoption has the potential to improve service delivery quality and customer participation in various industries worldwide. However, there are also challenges that need to be addressed, such privacy concerns and the local cultural factors here in UAE. Therefore, there is a need for further investigation into the potential impact of cloud-based BI adoption on service delivery quality and customer participation in private sector companies in the UAE and how to get the best utilization respecting the regulations and challenges.

2.5 The impact of cloud-based BI adoption on customer participation

Business intelligence (BI) systems can play a crucial role in enhancing customer engagement in the textile and apparel industry. By providing real-time insights into customer preferences, behaviors, and buying patterns, Business intelligence systems can assist organizations in gaining a better understanding of their customers, allowing them to customize their products and services to satisfy their requirements. This can result in enhanced customer satisfaction and loyalty, as well as increased sales and profitability (Ahmad at al., 2020).

BI can also help companies identify opportunities for sustainability improvements, which can further enhance customer engagement and contribute to the industry's sustainability goals. Similarly, Kunz, at al., (2017), Cloud business intelligence can enable high customer participation through effective data analysis and customer insights. By utilizing big data analytics and customer engagement strategies, businesses have the opportunity to acquire valuable knowledge regarding customer behavior and preferences. This information can play a pivotal role in guiding decision-making processes and enable the creation of tailored and captivating customer experiences.

This can ultimately result in increased customer satisfaction, loyalty, and advocacy, as well as improved business performance. Agostino, Søylen & Gerritsen (2013) suggests that cloud-based BI solutions can be customized specifically around the needs of the clients. This allows for greater flexibility and adaptability to the specific requirements of SMEs, leading to improved customer satisfaction and higher levels of engagement. The authors highlight the importance of understanding both vendor and customer perspectives in the implementation of cloud-based BI solutions to ensure that the needs and expectations of all stakeholders are met.

In the realm of Industry 4.0, cloud-based systems enhance loyalty programs for retention marketing. This system can leverage big data storage to gather customer data and provide insights to create customized loyalty programs. By using cloud-based Business Intelligence, businesses can analyze customer data in real-time and adjust loyalty programs accordingly to increase customer loyalty (Galletta et al., 2017). Referring to the study by Ajimoko (2018), cloud-based BI can provide the business with valuable insights into customer behavior. By analyzing extensive data, businesses can gain valuable insights into customers' preferences, behaviors, and needs. These insights can be utilized to enhance customer service and marketing strategies, resulting in improved customer satisfaction, loyalty, and retention.

2.6 Conclusion

In conclusion, this literature review has examined the theoretical frameworks of Technology Acceptance Model (TAM), SERVQUAL, and Service-Dominant Logic (SDL) in the context of investigating the effects of adopting cloud-based business intelligence (BI) on service delivery quality and customer participation within private sector companies in the UAE.

The Technology Acceptance Model (TAM) provides a valuable framework for understanding the factors that influence employees' adoption and utilization of cloud-based BI systems. Employees' perceptions of the usefulness and ease of use of these systems play a crucial role in determining their willingness to embrace and integrate them into their work. Perceived usefulness entails individuals' belief that using a specific technology will enhance their job performance or productivity. In the context of cloud-based BI systems, employees may perceive these systems as valuable tools for accessing, analyzing, and presenting business data, leading to improved decision-making and enhanced service delivery quality. On the other hand, ease of use refers to the extent to which individuals perceive a technology as effortless and requiring minimal mental or physical effort. Cloud-based BI systems that are intuitive, user-friendly, and require minimal training or technical expertise are more likely to be embraced by employees. Applying the TAM framework to the study of cloud-based BI adoption in UAE private sector companies aims to investigate how employees' perceptions of usefulness and ease of use influence service delivery quality and customer participation. The study may explore factors such as employees' attitudes, intentions, actual usage, and the impact of BI adoption on service delivery and customer engagement.

The SERVQUAL framework is a valuable tool for measuring service quality in the context of cloud-based BI adoption. By applying the five dimensions of SERVQUAL (tangibles, reliability, responsiveness, assurance, and empathy), service providers can assess the quality-of-service delivery and identify areas for improvement. The SERVQUAL framework provides a structured approach to assess the various aspects of service quality and enables service providers to identify areas for improvement and optimization in their service delivery process. By measuring customers' expectations and perceptions across these dimensions, companies can identify gaps and focus on enhancing specific areas that are crucial to delivering a high-quality service experience.

The application of the SERVQUAL model in assessing service quality within the context of cloud-based BI adoption in the private sector companies of the UAE enables a comprehensive evaluation of the service experience. It assists in identifying areas for improvement, optimizing the service delivery process, and formulating effective surveys to collect relevant data on service quality.

The Service-Dominant Logic (SDL) framework highlights the importance of value co-creation between service providers and customers in the context of cloud-based BI adoption. SDL emphasizes the customer's participation as an active co-creator of value and encourages service providers to focus on understanding and responding to customer needs and preferences. SDL is a theoretical framework that shifts the focus from a product-centric view to a service-centric view, emphasizing the importance of value co-creation in service ecosystems. It recognizes that customers are not passive recipients of value but active participants in the value creation process. SDL suggests that service providers should actively involve customers in the process of defining, designing, and delivering value through BI systems. The framework promotes a collaborative approach, where customers and service providers work together to leverage the capabilities of cloud-based BI systems and co-create value.

By incorporating the principles of SDL, the study can provide insights into the dynamics of value co-creation in the context of cloud-based BI adoption. It can explore how customer participation, needs, and preferences influence service delivery quality and how service providers can foster a collaborative environment to enhance value co-creation.

The literature review reveals that Cloud-based business intelligence adoption can enhance service delivery quality by providing real-time and accurate insights into customer needs,

preferences, and behavior. It can also enable private sector companies to offer more personalized and engaging experiences to customers. Additionally, cloud-based business intelligence adoption can increase customer participation by enabling them to provide feedback, suggestions, and ideas for improving products and services. This can lead to higher levels of customer engagement and loyalty, ultimately resulting in increased revenue and profitability for private sector companies.

The existing literature on the impact of cloud-based business intelligence adoption on service delivery quality and customer participation in private sector companies in the UAE has several significant gaps. Firstly, previous studies have relied mainly on secondary data sources, rather than primary data collected from private-sector companies in the UAE. Secondly, to gain a more comprehensive understanding of the effects of cloud-based business intelligence adoption, it is crucial to apply this study to multiple private companies operating in different industries in the UAE and in our study, we will apply on three different companies.

Lastly, it is essential to consider cultural factors and local regulations specific to the UAE. Addressing these gaps in this research can significantly enhance our understanding of the impact of cloud-based business intelligence adoption on service quality and customer participation in the UAE.

Chapter 3 Methodology

The aim of this chapter is to present the research methodology employed in examining the impact of adopting cloud-based business intelligence on service delivery quality and customer participation within private sector companies in the UAE. The chapter is divided into several sections, including the research approach, paradigm, research design, instrumentation, participants, and sampling. A mixed-methods approach was utilized to collect and analyze data, incorporating both qualitative and quantitative methods, along with the subsequent interpretation of results. Additionally, the chapter addresses the importance of ensuring the validity and dependability of the data, as well as ethical considerations adhered to throughout the research process.

The research design adopted a case study approach, focusing on private sector companies in the UAE as the unit of analysis, utilizing a sequential explanatory design. Quantitative data were gathered through a survey questionnaire, while qualitative data were obtained via semi-structured interviews. A purposive sampling technique was employed to select participants, and the instruments employed for data collection consisted of a questionnaire and semi-structured interview guide. The chapter outlines the data analysis procedures employed, which encompass descriptive statistics and thematic analysis. It highlights the significance of employing a mixed-methods approach in research and underscores the importance of ensuring data validity and dependability. Moreover, the chapter underscores the ethical considerations taken into account during the research process to safeguard participants' rights and privacy.

3.1 The research paradigm

According to Patel (2015), a research paradigm can be defined as a collective set of perspectives and understandings shared among researchers, guiding their approach and problem-solving methods. It represents a way of thinking, or a system of beliefs built upon research data. In this study, a mixed methods approach was employed, which is commonly rooted in the pragmatist paradigm (Feilzer, 2010). Therefore, the research technique adopted in this study is conceptualized within the framework of the pragmatism paradigm. Morgan (2007), Cherryholmes (1992), and Creswell (2014) argue that pragmatism serves as the philosophical foundation for mixed methods research. This paradigm suggests that the integration of

qualitative and quantitative methods is essential for attaining a comprehensive understanding of the subject matter and generating shared meaning.

Qualitative research provides in-depth insights, describes experiences, and explains and interprets relationships, while quantitative research generates numerical data on attitudes and opinions, enabling generalization to a larger sample population. This study adopts a mixed-methods approach as the research paradigm, integrating both qualitative and quantitative methods. Qualitative interviews, guided by the Technology Acceptance Model (TAM), were conducted with key stakeholders to gain profound insights into their perspectives on adopting cloud-based business intelligence (BI). Furthermore, a quantitative questionnaire, based on the SERVQUAL and Service-Dominant Logic (SDL) models, was administered to customers to collect their perceptions and experiences regarding service quality, customer engagement, and satisfaction. This mixed-methods approach facilitates a comprehensive understanding of the impact of adopting cloud-based BI, combining subjective insights from interviews with objective data obtained from the questionnaire. By employing this research paradigm, the findings can be triangulated, leading to a more holistic understanding of the research topic.

3.2 Research design

This study employs a mixed-method approach to examine employees in the CTO, BI Analysts, and Data Team departments within selected private companies. The mixed-method approach combines the strengths of both qualitative and quantitative research methods, allowing for the gathering of information from multiple sources and the triangulation of data to gain diverse perspectives on the research problem. Mixed methods research, as described by Hanson et al. (2005), involves the collection, analysis, and integration of both qualitative and quantitative data in a single or multiphase study. Qualitative data is typically open-ended, while quantitative data is structured and often obtained through surveys or tests.

Among the various design options available in mixed-methods research, the exploratory sequential mixed methods design was deemed most appropriate for this study. This design follows a two-phase approach, beginning with a qualitative phase to understand participants' perspectives. The data collected in this phase is analyzed to inform the subsequent quantitative phase. The qualitative phase can also aid in instrument development, instrument selection for the quantitative phase, or the description of variables necessary for the follow-up quantitative

study. To effectively address the research questions at hand, it is crucial to utilize both qualitative and quantitative research methods, as emphasized by Cohen et al. (2018). The study employs the exploratory sequential design to gain a comprehensive understanding of the impact of cloud-based business intelligence adoption within the UAE private sector. This design consists of two distinct phases: the qualitative phase and the quantitative phase.

- **Qualitative Phase:** In the qualitative phase, the study employs interviews to collect rich and detailed data on the experiences, perspectives, and challenges related to cloud-based business intelligence adoption in private sector companies in the UAE. This phase explores the phenomenon, identify key variables, and develop a theoretical framework. It investigates the perceived impact on service delivery quality and customer participation. The qualitative phase provides valuable insights.
- **Quantitative Phase:** In the quantitative phase, the study collects quantitative data through surveys administered to a sample of private sector companies in the UAE. The surveys include questions related to the adoption of cloud-based business intelligence, service delivery quality measures, and indicators of customer participation. By analyzing the survey responses using statistical methods, it can examine the relationships between cloud-based business intelligence adoption, service delivery quality, and customer participation. This phase provides empirical evidence to test and validate the hypotheses generated in the qualitative phase.

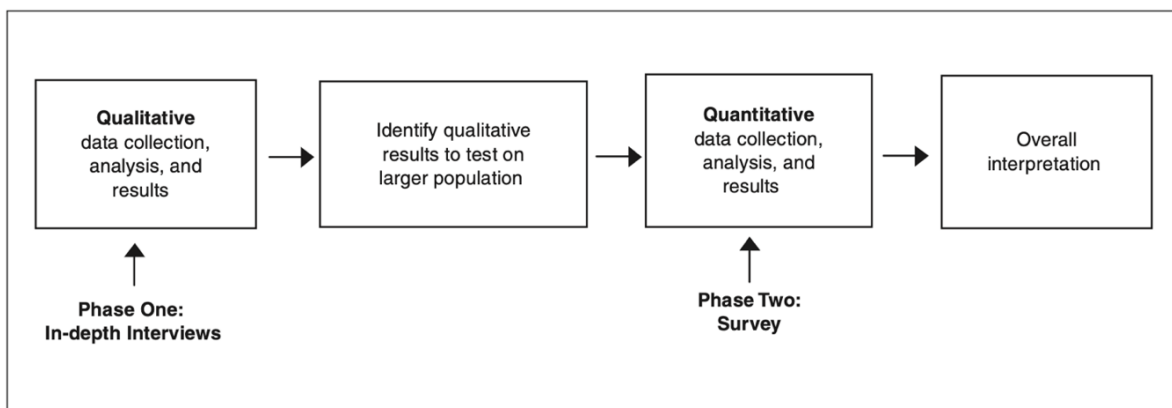


Figure 5: Mixed methods - Exploratory Sequential Design, (Fuentes, 2008)

The final step involves integrating the findings from the qualitative and quantitative phases. By combining the rich insights from the qualitative phase with the statistically supported findings from the quantitative phase, we can gain a more comprehensive understanding of the effects of

cloud-based business intelligence adoption on service delivery quality and customer participation in private sector companies in the UAE. This integration and interpretation process allows us to draw meaningful conclusions and provide recommendations for organizations regarding the adoption and utilization of cloud-based business intelligence to enhance their operations and customer experiences.

The objective of this study is to investigate the effects of cloud-based business intelligence adoption on service delivery quality and customers' participation in private sector companies located in UAE. To achieve this goal, a combination of interviews will be utilized, aligned with the Acceptance Model (TAM) framework factors, to gather qualitative information about the benefits and advantages associated with cloud-based business intelligence. Interviews will provide detailed insights into this topic, and survey questions based on the SERVQUAL model dimensions will be used to assess the quality of service provided by private sector companies in the UAE when utilizing cloud-based BI. Additionally, a survey aligned with the Service-Dominant Logic (SDL) framework will be developed to capture the complexities of service interactions and customer participation.

3.3 Data Collection Process

The initial phase of the data collection process involves acquiring ethical approval to ensure adherence to the guidelines set by the Research Ethics Committee, aligning with the research objectives and plan. Once approval is obtained, the participants are briefed about the study's purpose, and the collection of qualitative data commences through semi-structured interviews, conducted in accordance with the approved procedures.

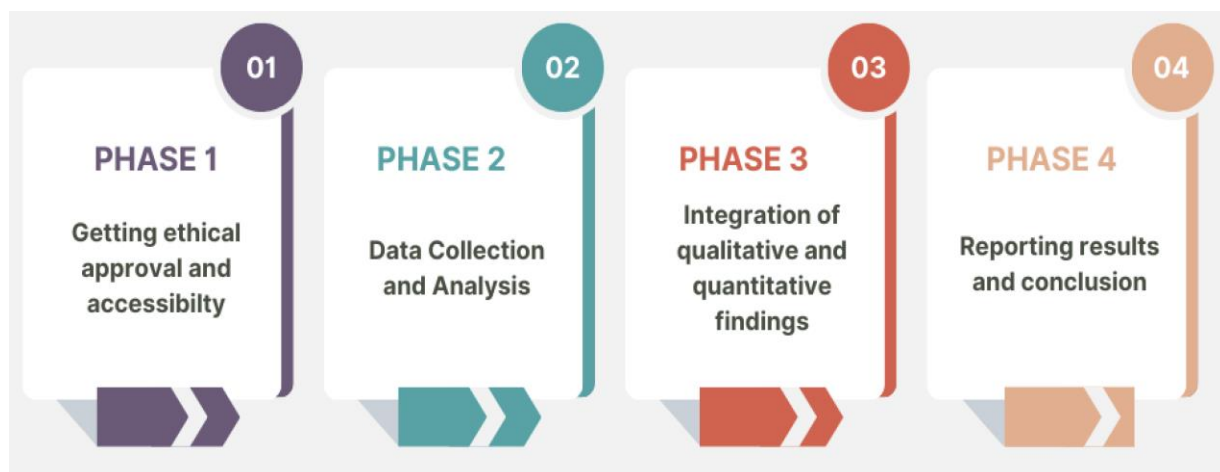


Figure 6: Data collection procedures

The themes identified from the interviews are utilized to create a quantitative tool that will allow for further exploration of the study topic (Schoonenboom and Johnson 2017). During the next phase, the questionnaire is distributed to a larger sample size, and the collected data is analyzed to provide context for the research findings and to clarify the qualitative analysis results.

The interpretation of data enables the integration of the qualitative and quantitative components of the study, and the dependability of all data is determined. Finally, the results from both methods are combined, and the findings are presented.

3.4 Qualitative Approach

A qualitative approach is a research methodology that aims to understand the complexity of human experience and behavior. According to Creswell (2014), it involves the collection, analysis, and interpretation of non-numerical data, such as text, images, or observations. The purpose of the qualitative approach is to explore and describe a phenomenon, rather than to make numerical generalizations. The approach is favored for its ability to provide detailed insights into the experiences and perspectives of individuals.

3.4.1 Interview method selection

Interviews are a widely utilized method for collecting qualitative data (Pope & Mays, 2006; Bengtsson & Fynbo, 2018; Fritz & Vandermause, 2018). In an interview, the conversation is directed by the interviewer, who poses questions while the interviewee responds (Shepherd & Griffiths, 2021). Qualitative research prioritizes the perspective of the interviewee, making interviews particularly suitable for exploratory or descriptive studies (Wilson, Williams & Hancock, 2000). Interviews offer a comprehensive means of gathering information about individuals' perspectives, ideas, and experiences pertaining to a specific issue (Easwaramoorthy & Zarinpoush, 2006). There are three main types of interviews: structured, semi-structured, and unstructured (Shorten & Moorely, 2014). Structured interviews employ closed-ended questions and standardized inquiries, facilitating the coding of responses from a large number of participants. Unstructured interviews, on the other hand, rely on open-ended questions without providing a specific direction, allowing for greater flexibility. Semi-structured interviews, the third type, utilize a mix of open-ended and closed-ended questions, offering a balance between flexibility and structure. The study aims to examine the advantages and benefits of cloud-based business intelligence, and to achieve this, the researchers concluded that a qualitative analysis

involving semi-structured interviews with CTOs, Data team managers and Business Intelligence Analysts would be the most appropriate approach. To ensure comprehensive coverage of the research topic, the interview was guided by a well-designed interview guide, which included prompts, props, and follow-up questions. The interview questions are designed to help us explore the benefits of cloud-based Business Intelligence adoption in private sector companies in the UAE. By gathering insights from CTOs, Data Team Managers and Business Intelligence Analysts who are working extensively with Business Intelligence systems and tools, we can identify the specific advantages that cloud-based BI can offer, such as improved service delivery quality, increased customer engagement, cost savings, and greater agility in responding to market changes. These insights can inform strategies for promoting cloud-based BI adoption in private sector companies in the UAE, and ultimately help organizations to enhance their service delivery quality and customer participation as well. The interview was designed in accordance with the Technology Acceptance Model (TAM), which is a well-established theoretical framework used to explain how individuals perceive and adopt new technology. The aim was to investigate the factors that influence individuals' acceptance of cloud-based business intelligence technology. To achieve this, the questions and prompts used in the interview were structured around the two key factors of the TAM: perceived ease of use and perceived usefulness. By designing the interview in accordance with TAM, the study aims to gain insights into the factors that impact individuals' attitudes toward cloud-based business intelligence and their intention to use it. This can inform the development of strategies to increase the acceptance and adoption of cloud-based business intelligence technology.

3.4.2 Sample Selection

Cohen, Manion, and Morrison (2018) state that a good research design not only requires a sound methodology but also an appropriate sampling strategy to collect data related to the research issue. The selection of a sample is a critical element of research design as it can impact the ability to answer research questions. A proper selection of a sample and appropriate sample size can enhance the study's validity and reliability while saving valuable time and resources. Qualitative research topics determine the sample and sampling procedures. In-depth inquiries into complex psychosocial issues require a limited number of participants. The researcher can choose between selecting a small representative sample from which everyone responds on behalf of a group or a theoretical sample. For this study, the researcher used the judgement

sampling approach to select participants based on their practical knowledge and judgement. The selection framework was created using factors found in the literature and practical knowledge of the phenomenon. In this study, the participants (N=9) were selected from various private companies in the UAE across different industries, including Digital media, Travel/Tourism, and E-commerce. The participants comprised of Data team managers, BI Analysts and CTOs who were the key stakeholders with the knowledge and expertise to provide valuable insights on the benefits and advantages associated with cloud-based business intelligence adoption. The sample was chosen to guarantee variety in business sectors.

3.4.3 Piloting the semi-structured interview

The interview framework was initially developed by adapting questions from the literature to align with the study's goals. To ensure its validity, an expert reviewed and approved the questions before they were piloted with a sample of the population. Pilot interviews are critical in identifying potential issues and enabling the interviewer to collect comprehensive data by steering the conversation towards the research topic. Pretesting allows researchers to modify question phrasing and ensure that they are easy to understand and in the correct order. The interview format includes pre-established open-ended questions that promote collaboration, relationship building, and a deeper understanding of interviewee perspectives (Cohen et al., 2018). Additionally, conversations between interviewer and interviewee can give rise to new questions, making the semi-structured interview approach valuable in gaining insight into research issues.

3.4.4 Interview Considerations

Interviews are a commonly utilized qualitative research technique that enables researchers to obtain comprehensive and detailed information on the experiences and viewpoints of participants. However, conducting interviews requires careful attention to several factors to confirm that the study is rigorous, valid, and ethically sound. One essential consideration is the selection of an appropriate interview format. Another key consideration is participant selection. Purposive sampling techniques, such as maximum variation or snowball sampling, can be used to identify participants with diverse perspectives and experiences relevant to the research question. Ethical considerations are also crucial when conducting interviews. Participants should be informed about the study's purpose, the confidentiality measures in place, and their

rights as research participants. Informed consent should be obtained before the interview to ensure that participants understand the study's aims and procedures and agree to participate voluntarily. The timing of interviews should also be arranged to suit participants' schedules, and appropriate equipment, such as recording devices, should be used to capture interview data accurately.

In summary, conducting interviews requires careful consideration of several factors, including interview format selection, participant selection, ethical considerations, and practical aspects. By carefully considering these factors, researchers can ensure that their study is methodologically rigorous, valid, and ethically sound.

3.4.5 Qualitative data analysis

The study adopts Braun and Clarke's (2006) six-phase framework for analysis. In Phase 1, the researchers familiarized themselves with the data, while Phase 2 involved creating initial codes. Phase 3 focused on identifying recurring themes, words, and patterns in the data, while Phase 4 involved categorizing these themes. Subsequently, in Phase 5, the researchers critically reviewed and refined the potential themes. Finally, in Phase 6, the findings were synthesized and presented in the study's ultimate report.

Thematic analysis, aided by NVivo software, was employed to examine the interview data. The process began with manual transcription of the interviews, which were then verified for accuracy by the participants. Participants were given the opportunity to supplement the transcripts with additional information and revisions. NVivo served as a robust qualitative analysis tool, allowing exploration of specific sections of the interviews and their ideas while maintaining access to the original material (Sepasgozar & Davis, 2018).

Following the identification of similar concepts and ideas and their organization into themes, the data was uploaded into NVivo to generate codes based on highlighted phrases. These codes were used to capture intriguing aspects of the data. Subsequently, the interview transcripts were thoroughly analyzed to gain a comprehensive understanding of the data, leading to the final findings derived from the interviews.

3.5 Quantitative Approach

A quantitative approach is a research methodology that heavily depends on numerical data, statistical analysis, and objective measurement to investigate a research question. According to Bryman and Bell (2015), it is commonly used in social sciences, natural sciences, and business studies. The aim of the quantitative approach is to identify patterns, trends, and relationships among variables, and to generalize that can be applied to larger populations. It is noteworthy that the quantitative approach has its limitations. For instance, it may not capture the full complexity of human experience or behavior and may be limited in its ability to explore the underlying reasons for a phenomenon. Therefore, it is often used in conjunction with qualitative methods, which can provide more detailed insights into the underlying factors that influence the outcomes of interest (Creswell 2014).

3.5.1 Questionnaire method selection

According to Bryman and Alan (2012), The quantitative approach is a research methodology that primarily depends on the gathering and analysis of data. Unlike qualitative research methods, which aim to understand phenomena (Punch, 2009), Creswell (2014) noted that quantitative research attempts to draw numerical generalizations about them. According to McMillan and Schmacher (2010), quantitative research examines the perspectives of multiple individuals and presents a numerical summary of the results to researchers. For this study, a Likert-scale questionnaire was utilized, which is based on a five-point agreement rating scale, to generate results that can be generalized to a larger population. The survey included both open-ended and closed-ended questions to provide participants with more options for expressing their opinions. Johnson and Christensen (2012) suggested that this is a preferable approach since it allows participants to have more options for expressing their opinions than just a quantitative survey. The questionnaire specifically was created for this purpose was disseminated to Data Engineers, DevOps Engineers, and System Engineers across various industries (Digital media, Travel/Tourism, and E-commerce) in a private company based in UAE. The researcher provided the participants with information on ethical considerations such as their anonymity, assurance that they would not be harmed, and that they would not bear any responsibility. Moreover, the participants were guaranteed their rights to privacy. The researcher also specified the expected time for the participants to complete the questionnaire, which ranged from 5 to 10 minutes. To

investigate the effects of cloud-based business intelligence adoption on service delivery quality and customer participation, a questionnaire was developed using two well-established theoretical frameworks: SERVQUAL and Service-Dominant Logic (SDL). The questionnaire included the five dimensions of the SERVQUAL model to ensure its effectiveness in studying the impact of cloud-based business intelligence adoption on service delivery quality. Furthermore, the SDL framework was used to create questions that specifically address the significance of value co-creation between service providers and customers in studying the effects of cloud-based business intelligence adoption on customer participation. To create the online questionnaires, Google Forms is utilized due to its easy codification process. The Likert scale is a type of scale that requires respondents to choose from a range of options, typically from the most extreme to the least extreme, is incorporated in the questionnaire. This scale is a potent and straightforward tool that includes positive expressions (such as "strongly agree") to indicate complete agreement and negative phrases (like "strongly disagree") to indicate complete disagreement. Additionally, combining both negative and positive statements in the questionnaire is rationalized to evaluate each part independently (Maher 1993).

3.5.2 Sample Selection

The target population for this study will be employees of private sector companies in the UAE who are involved in service delivery and have experience with cloud-based business intelligence adoption. The sampling method utilized will be stratified random sampling, where the population will be divided into strata based on job roles (e.g., Data Engineers, DevOps Engineers, System Engineers), and a random sample will be selected from each stratum. Selecting a suitable sample size entails ensuring that it is sufficiently large to offer the study with enough "power". "Power" refers to the probability of detecting a treatment effect if one exists (Shorten & Moorely, 2014). In other words, the sample size should be large enough to detect any significant differences or effects resulting from the intervention being investigated. The criteria used to select the participants will include individuals who have been working in the private sector in the UAE for at least one year, have experience with cloud-based business intelligence adoption, and are willing to participate in the study. Efforts will be made to avoid bias by selecting participants from different geographic regions in the UAE, different types of private sector companies, and ensuring that the sample includes participants from different job roles within each stratum.

3.5.3 Piloting the online questionnaire

To ensure the validity and reliability of the online questionnaire, a pilot study will be conducted before administering the final survey to the target population. The pilot study will help identify any issues or problems with the questionnaire, allowing for necessary revisions and improvements before the final survey. The pilot study will involve recruiting a sample of employees from private sector companies in the UAE who have experience with cloud-based business intelligence adoption and meet the inclusion criteria. Participants will be invited to participate via email invitations sent to employees within the researcher's network. Participants will be asked to complete the online questionnaire and provide feedback on the clarity of the questions, instructions, and response options. The researcher will collect feedback on the time required to complete the questionnaire, any technical issues encountered, and any comments or suggestions for improving the questionnaire (Koo and Li, 2016).

3.5.4 Quantitative data analysis

The quantitative data collected through the online questionnaire will undergo analysis using SPSS. The data analysis process will encompass several steps, including data cleaning and preparation, descriptive statistics, inferential statistics, and regression analysis. Data cleaning and preparation involve addressing missing data, outliers, and other data quality concerns. Missing data will be handled through mean imputation, and outliers will be identified and excluded from the dataset. Additionally, variables with high correlation will be identified and removed to avoid issues of multicollinearity in the regression analysis. Descriptive statistics, such as frequency distributions, measures of central tendency, and measures of dispersion, will be employed to summarize the data and provide insights into the characteristics of the sample. Inferential statistics, such as ANOVA and t-tests, will be utilized to examine significant differences between groups and explore relationships between variables. Multiple regression analysis will be conducted to assess the impact of cloud-based business intelligence adoption on service delivery quality and customer participation while controlling for relevant variables like company size, industry, and job role. The findings from the data analysis will be presented using tables, charts, and graphs to effectively communicate the results to the intended audience.

3.6 Mixed-methods Integration

This research project will utilize a combination of quantitative and qualitative methods to analyze data collected from an online questionnaire and follow-up interviews. The aim of this mixed-methods approach is to obtain a deeper understanding of how the adoption of cloud-based business intelligence affects service delivery quality and customer participation in private sector companies in the UAE. The quantitative data collected will be analyzed by SPSS, while the qualitative data will be analyzed using thematic analysis. A concurrent triangulation design will be used to combine the results of both types of analysis in order to gain a more complete understanding of the research questions. This involves analyzing the data separately and then merging the results to identify any common or diverging patterns. The mixed-methods approach will also involve assessing any unexpected findings, potential limitations, and implications for theory and practice. By integrating the findings from both quantitative and qualitative data, the study aims to provide a more nuanced and comprehensive understanding of the research questions, and to offer important insights for researchers, practitioners, and policymakers in the private sector in the UAE. Ultimately, the mixed-methods integration will lead to a well-supported and robust conclusion to the study.

3.7 Ethical Considerations

According to Howe and Moses (1999), Research misconduct can come from the incorrect treatment of participants or from the use of dishonest methods during the study or in the reporting of the study's conclusions. Therefore, researchers should assume personal responsibility for conducting their research ethically and treating all participants in their study with dignity and respect. Prior to data collection, analysis, and reporting, ethical considerations were made in the current investigation. Before beginning the study and collecting data, the researcher secured approval from an institutional review board or other similar body. All participants were given complete information about the study, including its goals, anticipated outcomes, and confidentiality. In addition to being told that their participation was entirely optional and confidential, participants were also given the chance to ask any concerns they had concerning the study and the eventual use of their data. In addition, the researcher assured the subjects that they might stop participating at any time.

Chapter 4 Data Analysis and Results

In line with the study's objective, this section examines the main outcomes derived from both the qualitative and quantitative phases. As previously mentioned, qualitative data was gathered through semi-structured interviews and analyzed using thematic analysis and NVivo software. Conversely, quantitative data was obtained from Likert-scale questionnaire responses and analyzed using SPSS software. This chapter is structured into two parts. The first part offers a summary of the significant findings from the qualitative interviews, while the second part presents and analyzes the quantitative findings from the online questionnaire.

The study follows a mixed methods research design, specifically adopting the Exploratory Sequential approach. This approach combines both quantitative and qualitative methods to obtain comprehensive insights into the research topic. For the quantitative aspect, semi-structured interviews were conducted to gather data from participants. These interviews provided a structured framework while allowing flexibility for participants to provide elaborations, facilitating a deeper understanding of the quantitative aspects of the research. Additionally, a qualitative approach was employed through the use of questionnaires. The questionnaires were designed to obtain rich, in-depth insights into participants' experiences, perceptions, and attitudes regarding the impact of cloud-based business intelligence adoption on service delivery quality and customer participation.

By utilizing a mixed methods approach, the research aimed to triangulate data from quantitative and qualitative sources, thereby enhancing the validity and reliability of the findings. The integration of different data collection methods enabled a comprehensive exploration of the research topic, leading to a more holistic understanding of the effects of cloud-based business intelligence adoption within private sector companies in the UAE.

4.1 Qualitative Results

The research employs the Technology Acceptance Model (TAM) framework to implement a quantitative approach, focusing on two main themes: the perception of the usefulness of adopting cloud-based business intelligence and the perception of the ease of adopting cloud-based business intelligence. This section presents the qualitative results obtained from interviews conducted with Chief Technology Officers (CTOs), Data Team Leaders, and

Business Intelligence (BI) Analysts, focusing on the two main themes. The participants' responses provide insights into their perceptions and experiences regarding these themes.

By leveraging these insights, strategies can be developed to promote cloud-based BI adoption, ultimately helping organizations enhance their service delivery quality, increase customer engagement, and improve agility in responding to market changes.

Following the completion of the interviews, the interview questions were organized and examined using NVivo version 14 for analysis. The data collected from the interviews was directly inputted into the software to facilitate efficient data management. NVivo was employed as a tool to assist in the process of coding the data into relevant themes and subcategories. In line with the research design, an initial list of codes was developed to guide the analysis process. This dissertation explores the perceptions and experiences of individuals regarding the ease of adopting cloud-based business intelligence technologies. The primary data collection method involved conducting interviews with participants who had firsthand experience with cloud-based business intelligence adoption in their respective organizations.

The interview data revealed two prominent themes related to the perceived ease of cloud-based business intelligence adoption. The first theme, referred to as "Theme 1: Ease of Use Assessment," comprised seven questions aimed at evaluating individuals' perceptions of the ease of using cloud-based business intelligence during the adoption process. These questions were designed to assess factors such as the complexity of the technology, the amount of training required, and the ease of integration with existing systems. The analysis of responses to these questions provided valuable insights into participants' experiences and perspectives on the ease of using cloud-based business intelligence tools.

The second theme, named "Theme 2: Perceived Ease of Cloud-Based Business Intelligence Adoption," encompassed seven additional questions. These questions delved further into individuals' perceptions of the ease of adopting cloud-based business intelligence technologies. They explored aspects such as user-friendliness, intuitiveness of the interface, availability of support resources, and anticipated future improvements in ease of use. Through the analysis of responses to these questions, a comprehensive understanding of participants' viewpoints regarding the ease of adopting cloud-based business intelligence tools was obtained.

By exploring these two themes and analyzing the qualitative data gathered from the interviews, this dissertation aims to shed light on the perceived ease of cloud-based business intelligence adoption.

Name	Files	References	Created on	Created...	Modified on	Modified by	Color
○ Perceived Ease of Cloud-...	0	0	Today, 1:00 AM	HAMZA...	Today, 1:45 AM	HAMZAWI	
○ data analysis or reporting	9	9	Today, 1:04 AM	HAMZA...	Today, 2:20 AM	HAMZAWI	
○ ease of use	9	20	Today, 1:05 AM	HAMZA...	Today, 2:20 AM	HAMZAWI	
○ easier to use than tradi...	0	0	Today, 1:03 AM	HAMZA...	Today, 1:31 AM	HAMZAWI	
○ Expected innovations i...	8	8	Today, 1:05 AM	HAMZA...	Today, 2:21 AM	HAMZAWI	
○ technical support do yo...	9	9	Today, 1:03 AM	HAMZA...	Today, 2:20 AM	HAMZAWI	
○ The accessibility and a...	9	9	Today, 1:05 AM	HAMZA...	Today, 2:20 AM	HAMZAWI	
○ training and developme...	9	9	Today, 1:04 AM	HAMZA...	Today, 2:20 AM	HAMZAWI	
○ Perceived Usefulness of C...	0	0	Today, 12:59 AM	HAMZA...	Today, 1:34 AM	HAMZAWI	
○ ability to collect, proce...	9	9	Today, 1:00 AM	HAMZA...	Today, 2:18 AM	HAMZAWI	
○ customer satisfaction a...	9	9	Today, 1:01 AM	HAMZA...	Today, 2:19 AM	HAMZAWI	
○ improve collaboration a...	9	9	Today, 1:01 AM	HAMZA...	Today, 2:18 AM	HAMZAWI	
○ improve the organizatio...	9	10	Today, 1:02 AM	HAMZA...	Today, 2:20 AM	HAMZAWI	
○ new business opportun...	9	9	Today, 1:02 AM	HAMZA...	Today, 2:19 AM	HAMZAWI	
○ scalability and flexibility	9	18	Today, 1:00 AM	HAMZA...	Today, 2:18 AM	HAMZAWI	
○ understand customer n...	9	9	Today, 1:01 AM	HAMZA...	Today, 2:18 AM	HAMZAWI	

Figure 7: Data collection and Coding

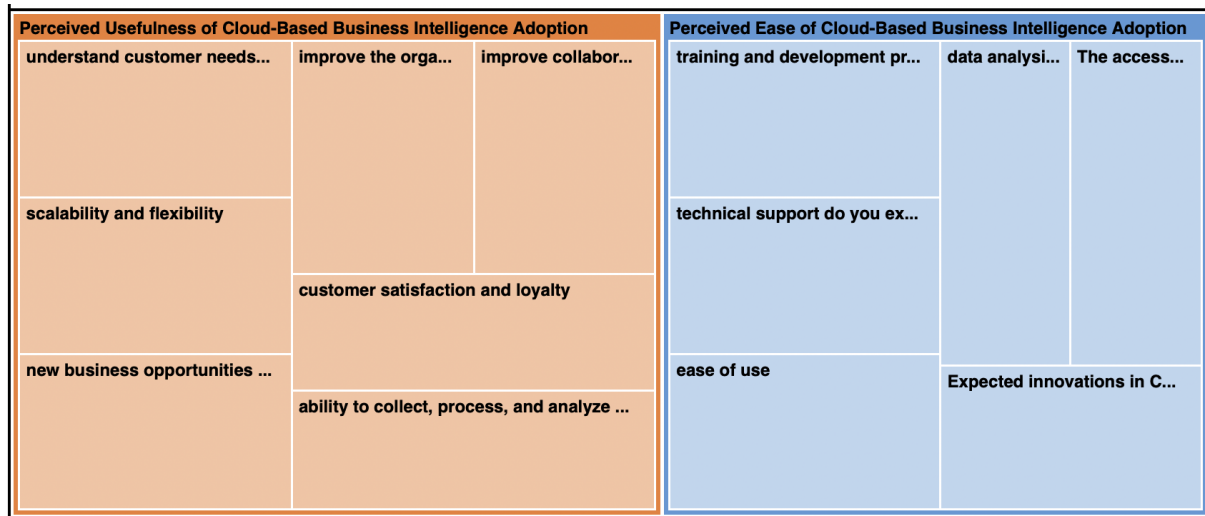
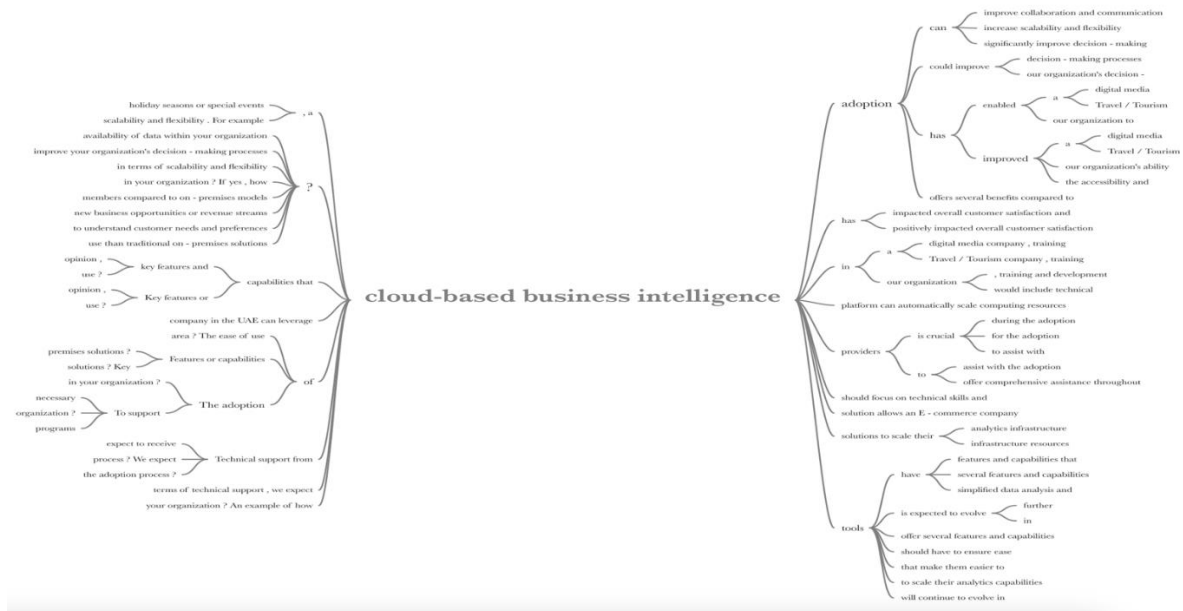


Figure 8: Treemap of Codes



4.1.1 Theme1: Perceived Usefulness of Cloud-Based Business Intelligence Adoption

This theme comprises eight questions aimed at assessing individuals' perceived usefulness in relation to the adoption of cloud-based business intelligence.

4.1.1.1 Question1: What kind of benefits do you believe cloud-based business intelligence adoption can offer compared to on-premises models in terms of scalability and flexibility?

4.1.1.1.1 E-commerce Company Responses

The responses provided by the CTO of an E-commerce company, a BI Analyst, and the Head of the Data team at the same E-commerce company highlight the perceived benefits of adopting cloud-based business intelligence compared to on-premises models in terms of scalability and flexibility. According to these responses, cloud-based business intelligence adoption offers several advantages. Firstly, it enables the company to scale its analytics infrastructure dynamically based on demand. This is particularly beneficial during peak shopping seasons or promotional campaigns when there is a surge in data processing and analysis requirements. By quickly allocating additional computing resources, the company can effectively handle the increased workload. Additionally, cloud-based solutions provide the flexibility to scale up or down as needed. This flexibility allows the company to adapt to changing business needs and accommodate growth without significant upfront investments in hardware or infrastructure. This scalability and flexibility not only ensure optimal performance but also contribute to cost efficiency.

Overall, the feedback from the CTO, BI Analyst, and Head of the Data team emphasizes that cloud-based business intelligence adoption facilitates the ability to scale resources dynamically and adapt to varying demands. This flexibility enables the company to efficiently handle peak periods and effectively manage growth without incurring substantial upfront costs.

4.1.1.1.2 Travel/Tourism Company Responses

The statements provided by the Chief Technology Officer (CTO) of a Travel/Tourism company, a Business Intelligence (BI) Analyst, and the Head of the Data Team from the Travel/Tourism company confirm that adopting cloud-based business intelligence offers numerous advantages for the Travel/Tourism sector. Firstly, it allows companies to adjust their infrastructure resources in response to demand, enabling them to scale up or down as needed. This feature is especially beneficial during busy travel seasons or when launching marketing campaigns

because it facilitates the swift allocation of additional computing power and storage capacity in the cloud. Consequently, it ensures smooth operations and accommodates variations in data volume and processing requirements. Additionally, cloud-based solutions provide flexibility, allowing easy scaling based on business needs. This flexibility not only promotes cost efficiency but also adapts to changing business requirements. The capability to scale resources in the cloud empowers Travel/Tourism companies to handle increased workloads during peak periods, such as high booking rates and customer inquiries, without encountering performance issues or service interruptions. Ultimately, this scalability leads to uninterrupted services and an improved overall customer experience. In summary, the feedback received from the CTO, BI Analyst, and Head of the Data Team underscores the advantages of adopting cloud-based business intelligence in the Travel/Tourism industry. These advantages encompass dynamic infrastructure scaling, accommodating data fluctuations, ensuring smooth service delivery during peak periods, and enhancing the overall customer experience.

4.1.1.1.3 Digital Media Company Responses

According to the CTO of a Digital Media company, a BI Analyst, and the Head of Data at the same company responses, cloud-based business intelligence adoption offers several advantages for the Digital Media industry. Firstly, it enables companies to scale their analytics infrastructure dynamically based on demand. This scalability is particularly beneficial during periods of high traffic or campaign launches, as it allows for the allocation of resources to handle increased data processing and analysis requirements. Cloud-based solutions ensure that systems can handle large volumes of data without performance degradation.

Moreover, cloud-based solutions provide flexibility in two key areas. Firstly, they allow for scaling resources up or down as needed, accommodating changing business needs, and enabling quick adaptation. This flexibility allows companies to efficiently manage growth without significant upfront investments in hardware or infrastructure. Secondly, cloud-based BI tools offer the flexibility to access data and insights from anywhere, at any time, facilitating remote work and promoting collaboration among team members located in different locations.

In summary, the feedback from the CTO, BI Analyst, and Head of Data highlights the benefits of cloud-based business intelligence adoption in the Digital Media industry. These benefits include dynamic scalability to handle increased workloads during peak periods, adaptability to changing business needs, and flexibility in accessing data and promoting collaboration.

4.1.1.2 Question 2: Do you agree that the adoption of certain cloud-based data engineering technologies and tools has enhanced your organization's ability to collect, process, and analyze data? If yes, how?

4.1.1.2.1 E-commerce Company Responses

The responses provided by the CTO of an E-commerce company, a BI Analyst, and the Head of the Data team at the same company emphasize the positive impact of adopting certain cloud-based data engineering technologies and tools on the organization's ability to collect, process, and analyze data. According to these responses, the adoption of cloud-based data engineering technologies has enhanced the organization's data-related capabilities in several ways. Firstly, the use of cloud-based data integration platforms enables efficient collection and integration of data from various sources, such as transactional systems, CRM platforms, and marketing automation tools. This seamless integration allows for a comprehensive view of the data, facilitating accurate and reliable analysis.

Moreover, cloud-based data engineering technologies provide scalable data processing capabilities, allowing the organization to handle large volumes of data efficiently. This scalability ensures that data processing tasks, including complex transformations, can be performed effectively and in a timely manner. The enhanced data collection and processing capacity, as a result of cloud-based adoption, contributes to more accurate and comprehensive analysis, enabling the organization to gain valuable insights into customer behavior, purchase patterns, and other aspects related to sales and operations.

In summary, the feedback from the CTO, BI Analyst, and Head of the Data team highlights the positive effects of adopting cloud-based data engineering technologies on the organization's data collection, processing, and analysis capabilities. The utilization of cloud-based platforms and tools allows for seamless integration of data from various sources and enables efficient processing of large volumes of data, ultimately leading to more accurate and comprehensive insights that can drive informed decision-making within the organization.

4.1.1.2.2 Travel/Tourism Company Responses

Based on the responses provided by the CTO, BI Analyst, and Head of the Data team, the implementation of cloud-based data engineering technologies has had a favorable effect on data-related capabilities in the Travel/Tourism sector. The adoption of cloud-based data integration platforms has enabled the smooth connection and merging of data from various sources, such

as online booking systems, customer feedback platforms, and social media. These platforms offer efficient data pipelines and transformation capabilities, enabling the organization to gather and process large volumes of data from diverse origins. Additionally, cloud-based analytics tools have played a crucial role in the analysis process. They enable advanced data analysis and provide valuable insights into customer behavior, travel patterns, and market trends. By leveraging cloud-based data integration platforms and analytics tools, the organization gains improved data availability, accessibility, and the ability to conduct accurate and comprehensive analyses. These capabilities, in turn, support well-informed business decisions.

In conclusion, the feedback from the CTO, BI Analyst, and Head of the Data team emphasizes the positive impact of adopting cloud-based data engineering technologies and tools on data collection, processing, and analysis within the Travel/Tourism industry. The utilization of cloud-based platforms facilitates seamless data integration, efficient data processing, and advanced analytics, resulting in valuable insights for decision-making and the optimization of business strategies within the industry.

4.1.1.2.3 Digital Media Company Responses

Based on the feedback provided by the CTO, BI Analyst, and Head of the Data Team in the digital media company, the implementation of cloud-based data engineering technologies has had a favorable effect on data-related capabilities in the Digital Media industry. Cloud-based data integration platforms enable the organization to collect data from various sources such as social media platforms, content management systems, and ad networks. This comprehensive data gathering approach ensures that a wide range of data is captured, providing a holistic view of digital media activities. Furthermore, the adoption of cloud-based data processing and analysis tools offers scalable computing resources and advanced analytics capabilities. This empowers the organization to efficiently handle large volumes of data and extract valuable insights to optimize digital media campaigns and strategies. By leveraging these technologies, the organization can make data-driven decisions more quickly, improve campaign targeting and performance, and gain a competitive advantage in the industry.

Moreover, cloud-based data pipelines, data lakes, and data warehousing solutions contribute to cost-effective and scalable data processing and analysis. These tools facilitate the storage and real-time analysis of substantial amounts of user-generated content from social media platforms.

This enhanced data processing capability enables the organization to derive valuable insights about user behavior, preferences, and trends.

In summary, the feedback from the CTO, BI Analyst, and Head of the Data Team highlights the positive impact of adopting cloud-based data engineering technologies and tools on data collection, processing, and analysis capabilities within the Digital Media industry. The utilization of cloud-based platforms enables comprehensive data gathering, efficient data processing, and advanced analytics, leading to improved decision-making, campaign optimization, and a deeper understanding of user behavior in the industry.

4.1.1.3 Question 3: Do you think that cloud-based business intelligence adoption can increase scalability and flexibility in your organization? If yes, how?

4.1.1.3.1 E-commerce Company Responses

According to the CTO, during peak shopping periods such as Black Friday or holiday sales, cloud-based analytics platforms can automatically scale computing resources to handle the increased data load and analysis requirements. This ensures efficient data processing and analysis without impacting the overall performance of other systems. The flexibility of cloud-based solutions also allows organizations to adjust resources and costs based on demand, providing scalability and cost optimization. Similarly, the BI Analyst highlights that cloud-based business intelligence enables the scaling of analytics infrastructure in the cloud during peak shopping seasons. This scalability allows the organization to handle increased data volumes and processing requirements, generating valuable insights for optimizing sales and marketing strategies. Additionally, the ability to easily scale down resources during slower periods optimizes costs. The rapid deployment capabilities of cloud-based business intelligence enable prompt setup, configuration, and informed decision-making. The Head of the Data Team echoes the sentiment, emphasizing that cloud-based analytics platforms can automatically scale computing resources during peak shopping periods. This ensures efficient data processing and analysis without affecting the performance of other systems. Furthermore, the flexibility of cloud-based solutions in terms of pricing models allows organizations to adjust resources and costs based on demand, providing scalability and cost optimization.

In summary, the responses from the CTO, BI Analyst, and Head of the Data Team collectively suggest that cloud-based business intelligence adoption enhances scalability and flexibility within the E-commerce organization. Cloud-based analytics platforms enable automatic scaling

of computing resources during peak periods, ensuring efficient data processing and analysis. The flexibility of cloud-based solutions, including flexible pricing models, allows organizations to adjust resources and costs based on demand, providing scalability and cost optimization. These insights contribute to a comprehensive understanding of the benefits of cloud-based business intelligence adoption in terms of scalability and flexibility within the E-commerce industry.

4.1.1.3.2 Travel/Tourism Company Responses

The combined feedback from the CTO of the Travel/Tourism company, the BI Analyst, and the Head of the Data Team indicates that the adoption of cloud-based business intelligence can indeed improve scalability and flexibility within the organization. According to the CTO, cloud-based business intelligence platforms allow for automatic scaling of computing resources during peak periods, such as holidays or special events. This ensures efficient data processing and analysis without affecting the performance of other systems. The flexibility of cloud-based solutions, including adaptable pricing models, enables organizations to adjust resources and costs based on demand, offering scalability and cost optimization. Likewise, the BI Analyst highlights that the adoption of cloud-based business intelligence enables the Travel/Tourism company to effectively manage varying demand and accommodate seasonal fluctuations. By utilizing cloud-based analytics platforms, the organization can dynamically adjust resources to align with changing demand patterns, ensuring optimal performance and customer satisfaction. This scalability and flexibility provide a competitive edge by effectively adapting to market dynamics. The Head of the Data Team emphasizes the benefits of scalability and flexibility in the context of a hotel chain. By leveraging cloud infrastructure, including reservation systems and analytics tools, the company can scale their booking processes, efficiently manage inventory, and optimize room pricing based on real-time demand. This scalability enables them to deliver high-quality services to customers while efficiently utilizing their resources.

In summary, the responses from the CTO, BI Analyst, and Head of the Data Team collectively indicate that the adoption of cloud-based business intelligence enhances scalability and flexibility within the Travel/Tourism organization. Cloud-based platforms allow for the automatic scaling of computing resources, accommodating varying demand and seasonal fluctuations. The flexibility of cloud-based solutions, including pricing models and the utilization of cloud infrastructure, offers scalability and cost optimization. These insights

contribute to a comprehensive understanding of the benefits of adopting cloud-based business intelligence in terms of scalability and flexibility in the Travel/Tourism industry.

4.1.1.3.3 Digital Media Company Responses

The responses from the CTO of the Digital Media company, the BI Analyst, and the Head of Data collectively indicate that cloud-based business intelligence adoption can indeed increase scalability and flexibility within the organization. The CTO highlights that as a digital media company, their operations and data volumes can fluctuate significantly depending on campaigns, content releases, and user engagement. Cloud-based business intelligence enables seamless scalability by quickly provisioning additional computing resources during peak periods and scaling them down during decreased demand. This scalability ensures that their analytics infrastructure can effectively handle variable workloads while optimizing costs. The BI Analyst emphasizes that cloud-based solutions enable easy scalability of the infrastructure to accommodate the growing data and analytics needs of the organization. This scalability ensures they can handle increased data volumes, perform complex analyses, and adapt to the evolving demands of digital media operations. The Head of Data provides an example specific to a video streaming platform. By leveraging cloud infrastructure and transcoding services, the company can scale its video transcoding and delivery capabilities. This scalability allows for automatic adjustment of video quality and format based on users' network conditions and device capabilities. This ensures a seamless streaming experience for users, regardless of their location or the devices they use.

In summary, the responses from the CTO, BI Analyst, and Head of Data collectively suggest that cloud-based business intelligence adoption enhances scalability and flexibility within the Digital Media organization. Cloud-based solutions enable seamless scalability of infrastructure to handle varying workloads and accommodate growing data volumes. The flexibility provided by cloud-based business intelligence ensures optimal resource utilization and adaptability to changing demands. These insights contribute to a comprehensive understanding of the benefits of cloud-based business intelligence adoption in terms of scalability and flexibility within the Digital Media industry.

4.1.1.4 Question 4: How do you think cloud-based business intelligence adoption can improve collaboration and communication among team members compared to on-premises models?

4.1.1.4.1 E-commerce Company Responses

The responses from the CTO of the E-commerce company, the BI Analyst, and the Head of the Data Team collectively suggest that cloud-based business intelligence adoption can indeed improve collaboration and communication among team members compared to on-premises models. According to the responses, cloud-based collaboration tools integrated with business intelligence platforms enable real-time collaboration and knowledge sharing. Team members from different departments, such as marketing, sales, and operations, can access shared dashboards and reports, collaborate on data analysis, and provide feedback. This fosters cross-functional collaboration promotes data-driven discussions, and enables better decision-making based on collective insights. Cloud-based collaboration tools facilitate seamless communication channels, breaking down silos within the organization. By providing a centralized platform for team members to access and work on data, cloud-based business intelligence adoption encourages collaboration, allowing team members to share insights, ask questions, and provide feedback. This improved communication and collaboration contribute to overall operational efficiency.

In summary, the responses from the CTO, BI Analyst, and Head of the Data Team collectively suggest that cloud-based business intelligence adoption enhances collaboration and communication among team members compared to on-premises models. The integration of cloud-based collaboration tools with business intelligence platforms enables real-time collaboration, knowledge sharing, and data-driven discussions. This fosters cross-functional collaboration promotes better decision-making based on collective insights and improves overall operational efficiency by facilitating seamless communication channels within the organization.

4.1.1.4.2 Travel/Tourism Company Responses

The combined feedback from the CTO of the Travel/Tourism company, the BI Analyst, and the Head of the Data Team indicates that adopting cloud-based business intelligence can indeed enhance collaboration and communication among team members compared to on-premises models. According to their responses, integrating cloud-based collaboration tools with business

intelligence platforms enables real-time collaboration and sharing of knowledge. Team members from various departments, such as marketing, sales, and operations, can access shared dashboards and reports, collaborate on data analysis, and provide feedback. This promotes cross-functional collaboration, facilitates data-driven discussions, and enables better decision-making based on collective insights. Cloud-based collaboration tools establish seamless communication channels, breaking down organizational silos. By providing a centralized platform for team members to access and analyze shared data in real-time, cloud-based business intelligence adoption fosters collaboration, allowing team members to exchange insights, collaborate on analysis, and make data-driven decisions together. This improved communication and collaboration contribute to overall operational efficiency.

In summary, the responses from the CTO, BI Analyst, and Head of the Data Team collectively suggest that adopting cloud-based business intelligence enhances collaboration and communication among team members compared to on-premises models. The integration of cloud-based collaboration tools with business intelligence platforms enables real-time collaboration, knowledge sharing, and data-driven discussions. This fosters cross-functional collaboration promotes better decision-making based on collective insights, and improves overall operational efficiency by facilitating seamless communication channels within the organization.

4.1.1.4.3 Digital Media Company Responses

The combined feedback from the CTO of the Digital Media company, the BI Analyst, and the Head of Data indicates that adopting cloud-based business intelligence can indeed enhance collaboration and communication among team members compared to on-premises models.

According to the responses, integrating cloud-based collaboration tools with the business intelligence (BI) platform allows team members from different departments, such as marketing, content, and sales, to access and collaborate on shared dashboards and reports in real-time. This promotes cross-functional collaboration, encourages data-driven discussions, and facilitates better decision-making based on collective insights. Cloud-based collaboration tools also enable seamless communication channels, breaking down organizational silos. Team members can access shared dashboards and reports, collaborate on data analysis, and discuss data insights in real-time, regardless of their physical location. This eliminates the need for manual data sharing

and version control, streamlining communication channels and fostering a more collaborative work environment.

In summary, the feedback from the CTO, BI Analyst, and Head of Data collectively suggests that adopting cloud-based business intelligence improves collaboration and communication among team members compared to on-premises models. The integration of cloud-based collaboration tools with the BI platform allows real-time access to shared data, promotes cross-functional collaboration, and facilitates better decision-making based on collective insights. Additionally, cloud-based collaboration tools streamline communication channels, breaking down organizational silos and fostering a more collaborative work environment.

4.1.1.5 Question 5: In what ways has cloud-based Business Intelligence adoption improved your organization's ability to understand customer needs and preferences?

4.1.1.5.1 E-commerce Company Responses

The responses from the CTO of the E-commerce Company, the BI Analyst, and the Head of the Data team collectively suggest that cloud-based Business Intelligence (BI) adoption has significantly improved their organization's ability to understand customer needs and preferences. According to the responses, leveraging cloud-based analytics platforms has enabled the organization to analyze customer data from multiple touchpoints, such as website interactions, purchase history, and customer feedback. By integrating and analyzing this data, they have gained valuable insights into customer preferences, behavior, and trends. These insights have helped personalize product recommendations, optimize marketing campaigns, and enhance the overall shopping experience. By utilizing cloud-based analytics, the organization can make data-driven decisions that align with customer expectations, leading to increased customer satisfaction and loyalty. Cloud-based BI adoption has provided the organization with a comprehensive view of customer behavior and preferences, enabling them to tailor their offerings and marketing strategies accordingly. The ability to analyze data from various sources and derive meaningful insights has empowered the organization to deliver personalized experiences, improve targeting, and enhance customer satisfaction.

In summary, the responses from the CTO, BI Analyst, and Head of the Data team collectively indicate that cloud-based BI adoption has significantly improved the organization's ability to understand customer needs and preferences. By leveraging cloud-based analytics platforms and integrating data from multiple touchpoints, the organization has gained valuable insights into

customer behavior and preferences. These insights have allowed them to personalize offerings, optimize marketing campaigns, and enhance the overall shopping experience, leading to increased customer satisfaction and loyalty.

4.1.1.5.2 Travel/Tourism Company Responses

The feedback from the CTO of the Travel/Tourism Company, the BI Analyst, and the Head of the Data Team collectively emphasizes the positive impact of adopting cloud-based Business Intelligence (BI) on the organization's understanding of customer needs and preferences. According to their responses, the utilization of cloud-based analytics platforms has enabled the organization to analyze customer data from various sources, including online bookings, social media interactions, and customer feedback platforms. By integrating and analyzing this data, they have gained valuable insights into customer preferences, travel behavior, and sentiment analysis. These insights have empowered the organization to customize their offerings, develop personalized marketing campaigns, and create tailored travel experiences that align with customer expectations. By leveraging cloud-based BI platforms, they can identify emerging trends, understand popular destinations, and assess customer satisfaction levels. This enables them to deliver more personalized and targeted services, resulting in increased customer satisfaction and engagement.

The adoption of cloud-based BI has provided the organization with a holistic understanding of customer booking patterns, preferences, and feedback. By integrating data from multiple sources and applying advanced analytics, they have gained valuable insights that inform their decision-making processes and enhance their understanding of customer needs.

In summary, the feedback from the CTO, BI Analyst, and Head of the Data Team collectively highlights the significant improvements brought about by cloud-based BI adoption in the organization's ability to understand customer needs and preferences in the travel/tourism industry. By leveraging cloud-based analytics platforms and integrating data from various touchpoints, the organization has obtained valuable insights into customer preferences, travel behavior, and satisfaction levels. These insights have facilitated customized offerings, personalized marketing campaigns, and tailored travel experiences, ultimately leading to higher customer satisfaction and engagement.

4.1.1.5.3 Digital Media Company Responses

The feedback from the CTO of the Digital Media Company, the BI Analyst, and the Head of Data highlights the positive impact of adopting cloud-based Business Intelligence (BI) on the organization's understanding of customer needs and preferences. According to their responses, leveraging cloud-based analytics platforms has allowed the organization to analyze user behavior, engagement metrics, and content consumption patterns. By integrating data from various sources such as website analytics, social media platforms, and customer feedback channels, they have gained a comprehensive understanding of customer behaviors and preferences. This has provided valuable insights into customer preferences, content effectiveness, and campaign performance. The utilization of cloud-based BI tools with advanced analytics capabilities, including segmentation, trend analysis, and predictive modeling, has enabled the organization to identify patterns, preferences, and trends among their customer base. These insights have allowed them to optimize their content strategies, personalize user experiences, and deliver targeted advertising campaigns. The result has been improved engagement and customer satisfaction.

In summary, the feedback from the CTO, BI Analyst, and Head of Data collectively suggests that adopting cloud-based BI has significantly enhanced the organization's ability to understand customer needs and preferences in the digital media industry. By leveraging cloud-based analytics platforms and integrating data from multiple sources, the organization has gained valuable insights into customer behaviors, preferences, and content effectiveness. These insights have empowered them to optimize content strategies, personalize user experiences, and deliver targeted advertising campaigns, leading to improved engagement and customer satisfaction.

4.1.1.6 Question 6: How has the adoption of cloud-based business intelligence impacted the overall customer satisfaction and loyalty in your organization?

4.1.1.6.1 E-commerce Company Responses

According to the responses, the adoption of cloud-based business intelligence has allowed the organization to analyze customer feedback data in real-time. This real-time analysis enables them to identify areas for improvement and take immediate actions to address customer concerns or issues. By leveraging cloud-based analytics platforms, the organization can proactively respond to customer needs, personalize shopping experiences, and provide targeted promotions. The customer-centric approach facilitated by cloud-based business intelligence

adoption has resulted in improved satisfaction levels among customers. By addressing customer needs promptly and personalizing their experiences, the organization has strengthened customer loyalty and encouraged repeat purchases. Additionally, by utilizing cloud-based analytics platforms, the organization can gather insights to tailor promotions and marketing strategies, leading to positive reviews and an enhanced customer experience. Ultimately, the adoption of cloud-based business intelligence has contributed to higher customer lifetime value by improving overall customer satisfaction and loyalty. By leveraging real-time customer feedback data and implementing proactive measures, the organization has fostered a customer-centric culture, resulting in increased customer satisfaction, stronger loyalty, and positive reviews.

In summary, the responses from the CTO, BI Analyst, and Head of Data team collectively suggest that the adoption of cloud-based business intelligence has had a positive impact on overall customer satisfaction and loyalty in the e-commerce organization. The ability to analyze customer feedback data in real-time and proactively respond to customer needs has resulted in improved satisfaction levels, strengthened loyalty, and higher customer lifetime value.

4.1.1.6.2 Travel/Tourism Company Responses

The feedback from the CTO of the Travel/Tourism Company, the BI Analyst, and the Head of Data Team collectively highlights the positive influence of adopting cloud-based business intelligence on customer satisfaction and loyalty within their organization. According to their responses, the adoption of cloud-based business intelligence has enabled the organization to analyze customer feedback and satisfaction data in real-time. This real-time analysis allows them to promptly identify areas for improvement and take immediate actions to address customer concerns. By leveraging cloud-based analytics platforms, the organization can proactively respond to customer needs, provide personalized services, and enhance the overall customer experience. The customer-centric approach facilitated by cloud-based business intelligence adoption has resulted in improved satisfaction levels among customers. By promptly addressing customer concerns, personalizing experiences, and proactively meeting customer expectations, the organization has strengthened customer loyalty. Furthermore, the utilization of cloud-based analytics platforms has empowered the organization to gain insights into customer preferences and tour experiences, enabling them to continuously enhance their offerings and services. This focus on customer satisfaction and continuous improvement has fostered loyalty, increased customer retention, and generated positive word-of-mouth referrals.

By addressing customer concerns promptly and enhancing the overall customer experience, the organization has established a reputation for providing exceptional services and exceeding customer expectations.

In summary, the responses from the CTO, BI Analyst, and Head of Data Team collectively indicate that the adoption of cloud-based business intelligence has had a positive impact on overall customer satisfaction and loyalty within the travel/tourism organization. The ability to analyze customer feedback data in real-time, proactively meet customer needs, and continuously improve offerings and services has led to improved satisfaction levels, strengthened customer loyalty, and positive word-of-mouth referrals.

4.1.1.6.3 Digital Media Company Responses

Based on the provided responses, cloud-based business intelligence allows companies to analyze customer feedback data in real-time, enabling them to identify areas for improvement and take immediate action to address issues. By utilizing cloud-based analytics platforms, organizations can proactively respond to customer needs, personalize experiences, and optimize strategies based on data-driven insights.

In the digital media industry, cloud-based business intelligence has proven effective in understanding customer preferences and content consumption patterns. By analyzing user feedback and behavior, companies can curate personalized content recommendations, resulting in enhanced user experiences and increased customer satisfaction. This personalized approach leads to longer engagement with the platform and higher customer loyalty. Additionally, cloud-based business intelligence enables organizations to personalize advertising campaigns, optimize content strategies, and deliver targeted messages to customers based on their preferences. This level of personalization contributes to improved customer satisfaction and loyalty, as customers feel more valued and engaged with the brand.

Overall, the adoption of cloud-based business intelligence provides organizations with the capability to analyze real-time customer data, make data-driven decisions, and take proactive actions to enhance customer satisfaction. By leveraging cloud-based analytics platforms, organizations can personalize experiences, respond to customer needs, and optimize strategies, ultimately leading to increased customer loyalty and advocacy.

4.1.1.7 Question 7: How has cloud-based Business Intelligence adoption enabled your organization to identify new business opportunities or revenue streams?

4.1.1.7.1 E-commerce Company Responses

According to the provided responses, cloud-based analytics platforms have played a crucial role in analyzing customer behavior, market trends, and competitor performance. This analysis provides valuable insights that support the identification of emerging product categories, customer segments, and untapped markets. Cloud-based BI allows organizations to gain actionable insights from real-time data, which helps them develop targeted marketing campaigns, launch new product lines, and explore strategic partnerships. By understanding customer behavior and preferences, organizations can tailor their offerings to meet evolving market demands and capitalize on emerging opportunities. Cloud-based analytics empower organizations to make informed decisions based on data-driven insights, supporting innovative business strategies that drive growth and increase revenue generation. Furthermore, cloud-based BI provides organizations with scalability and flexibility, enabling them to adapt quickly to changing market dynamics. By leveraging cloud resources and advanced analytics capabilities, organizations can identify patterns, trends, and market gaps that may lead to new business opportunities. This ability to analyze data in real-time and respond proactively helps organizations stay ahead of the competition and uncover new revenue streams.

In summary, the adoption of cloud-based Business Intelligence has empowered organizations to leverage data-driven insights to identify new business opportunities and revenue streams. By analyzing customer behavior, market trends, and competitor performance, organizations can develop targeted strategies, launch innovative products, and explore strategic partnerships. Cloud-based analytics provide actionable insights that support decision-making, drive growth, and contribute to increased revenue generation.

4.1.1.7.2 Travel/Tourism Company Responses

The responses indicate that cloud-based analytics platforms are used to analyze market trends, competitor offerings, and customer preferences. This analysis allows organizations to identify emerging travel destinations, niche markets, and untapped customer segments, creating opportunities for new revenue streams. By leveraging cloud-based analytics, organizations can make data-driven decisions that drive strategic initiatives. For example, they can develop targeted marketing campaigns to reach specific customer segments, create tailored travel

packages to cater to unique preferences, and pursue strategic partnerships to expand their customer base. Real-time data insights through cloud-based BI platforms enable organizations to stay ahead of market trends, adapt their strategies, and discover untapped revenue sources. Cloud-based Business Intelligence adoption also enables organizations to respond to changing customer demands and market dynamics. By analyzing customer search behavior and competitor offerings, organizations can identify shifts in customer preferences and emerging trends. This knowledge helps them develop innovative offerings, negotiate partnerships, and expand their service portfolio, thereby capturing new business opportunities.

In summary, the adoption of cloud-based Business Intelligence has revolutionized the travel and tourism industry by allowing organizations to harness data-driven insights. By analyzing market trends, competitor offerings, and customer preferences, organizations can identify new business opportunities and revenue streams. Cloud-based analytics platforms empower organizations to make data-driven decisions, develop targeted strategies, and adapt to changing market dynamics, leading to increased competitiveness, expansion of the customer base, and diversification of revenue sources.

4.1.1.7.3 Digital Media Company Responses

The responses highlight the utilization of cloud-based analytics platforms to analyze data from various sources, such as user demographics, content performance, market trends, and competitor analysis. This analysis enables organizations to identify emerging market segments, content niches, and advertising opportunities. Cloud-based BI tools provide organizations with the necessary insights to innovate, adapt to market trends, and capitalize on new revenue streams. By uncovering patterns, correlations, and insights through data analysis, organizations can make informed decisions and develop targeted strategies to seize new business opportunities. The ability to analyze customer behavior, market trends, and competitor performance helps organizations identify gaps in the market, niche audiences, and untapped potential for growth. For digital media companies, cloud-based BI adoption has facilitated a deep understanding of reader preferences and content consumption trends. By analyzing data on popular topics, article engagement, and reader demographics, organizations can identify niche audiences and create targeted subscription plans or advertising packages. This data-driven approach allows organizations to diversify their revenue streams and explore new market segments, ensuring sustained growth and profitability.

In summary, the adoption of cloud-based Business Intelligence has revolutionized the digital media industry by enabling organizations to leverage data-driven insights. Through the analysis of user demographics, content performance, market trends, and competitor analysis, organizations can identify new business opportunities and revenue streams. Cloud-based BI tools empower organizations to make informed decisions, develop targeted strategies, and capitalize on emerging trends, ultimately driving growth, diversifying revenue streams, and strengthening their competitive position in the market.

4.1.1.8 Question 8: How do you think cloud-based business intelligence adoption could improve your organization's decision-making processes?

4.1.1.8.1 E-commerce Company Responses

The responses highlight the advantages of cloud-based analytics platforms in delivering timely and precise insights to support data-driven decision-making. Adopting cloud-based BI allows organizations to access real-time data on crucial performance indicators such as sales figures, inventory levels, website traffic, and customer satisfaction metrics. This availability of up-to-date data empowers decision-makers to make informed choices based on current market trends and performance indicators. By utilizing cloud-based analytics tools, decision-makers can optimize inventory management, identify sales trends, and personalize marketing efforts to better cater to customer needs and preferences. The interactive dashboards and visualization capabilities provided by cloud-based analytics platforms play a crucial role in enhancing decision-making processes. These tools enable decision-makers to explore data, recognize patterns, and gain deeper insights into business performance. By visually representing data through interactive visualizations, decision-makers can quickly identify trends, correlations, and outliers, leading to more accurate and effective decision-making. Cloud-based BI adoption not only offers timely and accurate insights but also improves the efficiency of decision-making processes. By eliminating the need for manual data collection and analysis, organizations can save time and resources. Decision-makers can access the necessary information whenever and wherever they need it, enabling them to promptly respond to changing market conditions and make well-informed decisions. In summary, the adoption of cloud-based business intelligence brings significant improvements to organizations' decision-making processes. By providing timely and accurate insights, enabling real-time data access, and offering interactive visualization capabilities, cloud-based BI empowers decision-makers to make data-driven

decisions, optimize business operations, and enhance overall performance. The efficient and informed decision-making facilitated by cloud-based BI adoption can lead to improved organizational outcomes, increased competitiveness, and better alignment with customer needs and market trends.

4.1.1.8.2 Travel/Tourism Company Responses

The adoption of cloud-based business intelligence (BI) has the potential to improve decision-making processes within organizations, especially in the Travel/Tourism industry. The responses highlight the advantages of cloud-based analytics platforms in delivering timely and accurate insights to support data-driven decision-making. Cloud-based BI adoption enables organizations to access real-time data on key performance indicators (KPIs) such as booking trends, revenue figures, customer satisfaction metrics, and market dynamics. This availability of up-to-date data empowers decision-makers to make informed choices based on current market conditions and performance indicators. By leveraging cloud-based analytics tools, decision-makers can optimize pricing strategies, identify operational bottlenecks, and allocate resources effectively to enhance business operations. The interactive visualizations and dashboards offered by cloud-based analytics platforms play a crucial role in improving decision-making processes. These tools enable decision-makers to explore data, identify patterns, and gain actionable insights efficiently. By visually representing data through interactive visualizations, decision-makers can quickly understand important trends, correlations, and anomalies, leading to more effective decision-making. Cloud-based BI adoption not only provides timely and accurate insights but also enhances decision-making efficiency. Decision-makers can utilize cloud-based analytics platforms to conduct quick data analysis, access real-time data, and collaborate with other stakeholders to make informed decisions collaboratively. This streamlined decision-making process enables a rapid response to market changes, optimized resource allocation, and improved strategic outcomes.

In summary, the adoption of cloud-based business intelligence has the potential to significantly enhance decision-making processes in the Travel/Tourism industry. By providing timely and accurate insights, enabling real-time data access, and offering interactive visualizations and collaborative decision-making capabilities, cloud-based BI empowers decision-makers to make data-driven decisions, optimize pricing strategies, allocate resources effectively, and enhance overall operational efficiency. The efficient and informed decision-making facilitated by cloud-

based BI adoption can lead to improved business outcomes, increased competitiveness, and better alignment with customer needs and market dynamics in the Travel/Tourism industry.

4.1.1.8.3 Digital Media Company Responses

The adoption of cloud-based business intelligence (BI) enables decision-makers to access real-time data, interactive dashboards, and advanced analytics capabilities, facilitating quick access to actionable information for informed decision-making. For instance, decision-makers can rely on up-to-date data to identify trends, adjust strategies, and optimize marketing campaigns or content strategies. The availability of real-time data ensures decisions are based on the most current information, enhancing their effectiveness.

Cloud-based BI tools offer interactive dashboards that enable decision-makers to visualize data and gain a comprehensive understanding of audience engagement metrics, content performance, and social media trends. This visual representation facilitates the identification of patterns, correlations, and insights crucial for data-driven decision-making. By leveraging these tools, decision-makers can make informed choices regarding content creation, distribution channels, and optimization strategies, leading to more effective content strategies, improved user engagement, and better overall business outcomes.

Furthermore, cloud-based BI adoption promotes collaboration among decision-makers by providing a centralized platform for sharing insights and collaborating on data-driven decisions. This collaborative environment enhances communication, facilitates knowledge sharing, and streamlines the decision-making process. Decision-makers can work together more efficiently, leveraging collective expertise and insights to make data-driven decisions aligned with the organization's goals.

In summary, the adoption of cloud-based business intelligence improves decision-making processes in digital media companies by providing timely and accurate insights, enabling real-time data access, interactive dashboards, advanced analytics capabilities, and promoting collaboration among decision-makers. These benefits empower decision-makers to make informed choices, optimize strategies, and enhance overall business outcomes. Cloud-based BI adoption facilitates data-driven decision-making, leading to more effective content strategies, improved user engagement, and better alignment with market trends in the digital media industry.

4.1.2 Theme2: Perceived Ease of Cloud-Based Business Intelligence Adoption

This theme consists of seven questions designed to evaluate individuals' perceptions of the ease of using cloud-based business intelligence during the adoption process.

4.1.2.1 Question 1: What features or capabilities of cloud-based Business Intelligence tools do you believe make them easier to use than traditional on-premises solutions?

4.1.2.1.1 E-commerce Company Responses

Pre-built templates and industry-specific dashboards tailored to sectors like E-commerce streamline the utilization of cloud-based BI tools. These templates provide ready-made structures and visualizations specific to the industry, enabling users to quickly access relevant metrics without the need to build foundational elements from scratch. By saving time on setup, users can focus on interpreting data and deriving insights. Seamless integration with popular E-commerce platforms and data sources is another significant advantage of cloud-based BI tools. This integration eliminates the manual extraction and loading of data, as information can be automatically pulled from diverse sources and updated in real-time. This ensures users always have access to the most up-to-date information, enhancing the accuracy and relevance of their analysis. Collaborative features offered by cloud-based BI tools facilitate efficient teamwork and knowledge sharing. These tools enable users to share reports, dashboards, and analysis with colleagues and stakeholders, promoting a culture of data-driven decision-making within the organization. This enhances collaboration and leads to improved decision outcomes.

Furthermore, the mobile accessibility of cloud-based BI tools enables users to access and interact with data using their mobile devices, even when they are away from their desks. This flexibility allows decision-makers to stay informed and make data-driven decisions on the go, enhancing organizational agility and responsiveness.

In conclusion, cloud-based BI tools offer features and capabilities that make them user-friendly compared to traditional on-premises solutions. The intuitive interfaces, drag-and-drop functionality, pre-built templates, seamless integration with popular platforms, automated data updates, collaborative features, and mobile accessibility collectively contribute to a user-friendly experience. These advantages empower non-technical users to independently perform data analysis and make data-driven decisions. By enhancing usability and accessibility, cloud-based BI tools enable organizations to effectively leverage data for improved decision-making processes.

4.1.2.1.2 Travel/Tourism Company Responses

The user interfaces of cloud-based BI tools are designed to be intuitive, allowing non-technical users to easily explore and visualize data through drag-and-drop functionality. This empowers business analysts and managers to independently perform data analysis without relying on IT or data experts, fostering a self-service approach to decision-making. Pre-built templates and industry-specific dashboards cater to sectors like the Travel/Tourism industry, providing users with a starting point for data analysis and visualization. These templates are tailored to industry-specific needs and metrics, enabling users to quickly access relevant information and visualize data specific to their domain. By eliminating the need to build reports from scratch, cloud-based BI tools save time and effort, allowing users to focus on interpreting insights. Seamless integration with popular data sources is another key advantage of cloud-based BI tools, enabling users to connect and pull data from various sources such as customer databases, booking systems, and marketing platforms. This integration eliminates the manual extraction and loading of data, ensuring users have access to real-time and accurate information. This ease of data integration enhances the usability and reliability of the tools, as users can work with up-to-date information for their analysis and decision-making. Automated data updates simplify the usage of cloud-based BI tools by automating the process of data refresh and synchronization. This ensures users always have the latest data available for analysis, reducing the burden of manual updates and improving the timeliness and accuracy of insights. Collaboration features offered by cloud-based BI tools promote teamwork and knowledge sharing within organizations. Users can share reports, dashboards, and analysis with team members, facilitating collaborative decision-making. The ability to comment, annotate, and collaborate on data analysis enhances the effectiveness and efficiency of decision-making efforts, resulting in more informed and well-rounded decisions.

In conclusion, cloud-based BI tools provide user-friendly features and capabilities compared to traditional on-premises solutions. The intuitive user interfaces, drag-and-drop functionality, pre-built templates, seamless data integration, automated updates, and collaboration features collectively contribute to an enhanced user experience. These advantages empower non-technical users to perform independent data analysis, save time in report creation, work with real-time data, and collaborate effectively within their organizations. As a result, cloud-based

BI tools improve the usability and accessibility of data-driven insights, enabling organizations to make more informed and effective decisions.

4.1.2.1.3 Digital Media Company Responses

Cloud-based BI tools often include pre-built templates and visualizations specifically designed for different industries, such as digital media analytics. These templates serve as a starting point for users, saving time and effort in report creation. By offering industry-specific templates, cloud-based BI tools streamline the reporting process and allow users to focus on interpreting insights rather than designing visuals. Self-service analytics capabilities are another key feature of cloud-based BI tools. These capabilities empower business users to independently explore data, derive insights, and create reports without heavy reliance on IT or technical resources. Users can perform ad-hoc queries, apply filters, and generate visualizations on their own, enabling a more agile and efficient decision-making process. Seamless integration with popular platforms and data sources is also an advantage of cloud-based BI tools. They provide connectors and APIs that facilitate easy data ingestion and analysis from various sources, including digital media platforms and data sources. This integration simplifies the data integration process and ensures that users have access to real-time and comprehensive data for analysis.

In summary, cloud-based BI tools offer features and capabilities that enhance usability and ease of use compared to traditional on-premises solutions. The intuitive user interfaces, drag-and-drop functionality, pre-built templates, self-service analytics capabilities, and seamless integration with popular platforms and data sources collectively contribute to a more user-friendly experience. These features empower non-technical users to explore and analyze data, create custom reports and dashboards, and make informed decisions independently. By enabling self-service analytics and simplifying the data integration process, cloud-based BI tools promote a more agile and efficient approach to data-driven decision-making.

4.1.2.2 Question 2: What kind of technical support do you expect to receive from cloud-based business intelligence providers to assist with the adoption process?

4.1.2.2.1 E-commerce Company Responses

Technical support from cloud-based business intelligence providers plays a crucial role in assisting organizations with the adoption process, as stated in the responses provided. The expected technical support encompasses several areas, including infrastructure setup, data

integration, and system customization. Providers are expected to offer guidance and assistance in setting up the infrastructure required for implementing the cloud-based business intelligence solution. This may involve configuring servers, databases, and other necessary components to ensure a smooth deployment process. Data integration is another area where organizations require support. Cloud-based business intelligence providers are expected to assist in integrating data from various sources, ensuring that data flows seamlessly into the BI system. This may involve establishing connections with data repositories, data transformation, and data cleansing processes. System customization is also a key aspect where technical support is expected. Organizations may require assistance in tailoring the cloud-based BI solution to their specific needs and requirements. This may include customizing dashboards, reports, and visualizations, as well as configuring user access and security settings. Prompt and reliable customer support channels are essential to address any technical issues or challenges that may arise during the adoption and usage of the cloud-based BI tools. Providers are expected to offer responsive support through various means, such as online documentation, knowledge bases, and dedicated support personnel. These resources should be readily available to help users troubleshoot problems, provide guidance on best practices, and offer solutions to technical issues.

Overall, organizations expect technical support from cloud-based business intelligence providers to ensure a smooth implementation and ongoing maintenance of the BI solution. The availability of guidance, assistance, and responsive customer support channels contributes to a successful adoption process and helps organizations maximize the value derived from their cloud-based business intelligence tools.

4.1.2.2.2 Travel/Tourism Company Responses

In the context of adopting cloud-based business intelligence, organizations place great importance on the technical support provided by BI providers, as highlighted in the responses. The expected technical support focuses on three main areas: infrastructure setup, data migration, and system integration.

Firstly, organizations expect guidance and assistance from providers in setting up the necessary infrastructure for the cloud-based business intelligence solution. This involves configuring hardware, software, and networking components to ensure a smooth and successful deployment.

Secondly, support for data migration is essential. Organizations rely on BI providers to assist with the transfer of data from various sources into the cloud-based BI system. This includes ensuring data integrity, mapping data structures, and facilitating a seamless transfer process.

Lastly, system integration is a critical aspect where technical support is expected. Organizations anticipate assistance in integrating the cloud-based BI solution with their existing systems and platforms within the IT infrastructure. This may involve integrating with data sources, applications, or APIs to ensure smooth data flow between systems. These technical support resources should address any challenges or issues that arise during the adoption and usage of cloud-based BI tools. Responsive support is crucial in helping organizations overcome obstacles efficiently, ensuring a smooth transition, and ongoing utilization of the BI solution. Overall, organizations have high expectations for the technical support they receive from cloud-based business intelligence providers. Comprehensive assistance throughout the adoption process, including infrastructure setup, data migration, system integration, and responsive customer support, is vital for the successful implementation and utilization of cloud-based BI tools.

4.1.2.2.3 Digital Media Company Responses

The expected technical support encompasses various areas, including infrastructure setup, data integration, system customization, troubleshooting, and documentation. Organizations rely on cloud-based BI providers to assist them in setting up the required infrastructure for the BI solution. This involves guidance on configuring hardware, software, and networking components to ensure a smooth implementation. Support for data integration is also crucial, as organizations expect assistance in seamlessly integrating data from different sources into the cloud-based BI system. This includes maintaining data integrity, mapping data structures, and facilitating efficient data transfer. System customization is another significant aspect where technical support is expected. Organizations anticipate guidance in tailoring the cloud-based BI solution to their specific needs, such as customizing reports, dashboards, and optimizing the solution to align with their requirements. Prompt and reliable customer support channels play a vital role, and organizations expect responsive assistance through various channels like online documentation, knowledge bases, and dedicated support personnel. These resources should address any technical issues or challenges that arise during the adoption and usage of cloud-based BI tools, ensuring timely resolution and minimizing disruptions. In summary, organizations have high expectations for technical support from cloud-based BI providers

throughout the adoption process. Assistance with infrastructure setup, data integration, system customization, troubleshooting, and reliable customer support channels are essential for a smooth implementation and ongoing maintenance of the cloud-based BI solution. Additionally, comprehensive documentation and training resources contribute to successful adoption and utilization of cloud-based BI tools.

4.1.2.3 Question 3: What kind of training and development programs do you believe would be necessary to support the adoption of cloud-based business intelligence in your organization?

4.1.2.3.1 E-commerce Company Responses

To support the implementation of cloud-based business intelligence (BI) in organizations, the responses underscore the significance of training and development initiatives. These programs are designed to enhance employees' technical skills and data literacy. Technical training is crucial for ensuring proficient utilization of cloud-based BI tools. It encompasses learning specific BI software, data modeling techniques, data visualization methods, and advanced analytics concepts. This training equips employees with the necessary skills to explore and analyze data, extract meaningful insights, and make informed, data-driven decisions. Data literacy programs are also essential as they aim to improve employees' comprehension of E-commerce metrics and their ability to interpret data insights. By developing data literacy skills, employees can effectively leverage cloud-based BI tools and apply data-driven insights to their respective roles and responsibilities. Additionally, training on data governance, privacy regulations, and security best practices is crucial. This training ensures adherence to data protection regulations, safeguards customer data, and maintains data security and privacy. Employees should be educated on proper data handling, ethical data practices, and the importance of protecting sensitive information. In summary, the training and development programs required for the successful adoption of cloud-based BI encompass technical training on BI tools, data modeling, and visualization, as well as data literacy programs focused on understanding E-commerce metrics and utilizing analytics for decision-making. Furthermore, training on data governance, privacy regulations, and security best practices ensures compliance and data protection. These programs aim to equip employees with the knowledge and skills necessary to effectively leverage cloud-based BI and drive business success.

4.1.2.3.2 Travel/Tourism Company Responses

To facilitate the adoption of cloud-based business intelligence (BI) in a Travel/Tourism company, the responses emphasize the importance of training and development initiatives that target technical skills and data literacy. Technical training is essential to enable employees to proficiently use the specific cloud-based BI tools. This training should encompass topics such as data modeling, data visualization techniques, and advanced analytics concepts. By acquiring these skills, employees can effectively explore, analyze, and interpret data using the cloud-based BI tools, enabling them to derive valuable insights and make informed decisions. Data literacy programs are equally crucial in developing employees' understanding of data and its role in decision-making. These programs should educate employees on key performance indicators (KPIs), data interpretation, and the utilization of analytics to drive strategic actions and optimizations. By enhancing data literacy, employees become proficient in utilizing data-driven insights and incorporating them into their decision-making processes. Additionally, training on data security, privacy regulations, and best practices is vital. Employees should be educated on the significance of safeguarding customer information and complying with data protection regulations. This training ensures that employees understand their responsibilities regarding data governance and privacy, reducing the risk of data breaches and maintaining trust with customers. In summary, the necessary training and development programs for supporting the adoption of cloud-based BI in a Travel/Tourism company encompass technical training for effective utilization of the BI tools, data literacy programs focused on understanding KPIs and making data-driven decisions, and training on data security and privacy best practices. These programs empower employees to leverage cloud-based BI tools, extract meaningful insights from data, and drive strategic actions for the success of the organization.

4.1.2.3.3 Digital Media Company Responses

Technical training plays a critical role in enabling employees to effectively utilize specific cloud-based BI tools. This training should encompass various areas, including data modeling, analysis techniques, and understanding the unique aspects of the digital media industry. By acquiring these skills, employees can explore, visualize, and analyze data using cloud-based BI tools, extracting valuable insights and making informed decisions that align with the digital media landscape. Data literacy programs are equally essential in fostering a culture of data-driven decision-making. These programs should educate employees on key digital media

metrics, performance indicators, and campaign analysis. By enhancing data literacy, employees become proficient in understanding and interpreting data insights, allowing them to leverage analytics for strategic actions and optimizations. Moreover, training on data governance, privacy regulations, and security best practices is crucial. Employees should be educated on the significance of data compliance and protecting sensitive information. This training ensures that employees understand the ethical and legal responsibilities associated with data handling in the digital media industry, reducing risks and maintaining user trust. Continuous learning programs are also recommended to keep employees updated on the evolving nature of digital media analytics and cloud-based BI technologies. These programs can include workshops, seminars, and online resources to enhance employees' knowledge and skills, enabling them to adapt to emerging trends and advancements in the field. In summary, the necessary training and development programs for supporting the adoption of cloud-based BI in a digital media company encompass technical training for effective tool utilization, data literacy programs focused on key metrics and data-driven decision-making, training on data compliance and security, and continuous learning initiatives to stay abreast of industry developments. Equipping employees with the requisite skills and knowledge allow organizations to leverage the full potential of cloud-based BI and drive success in the dynamic digital media landscape.

4.1.2.4 Question 4: Can you provide an example of how cloud-based Business Intelligence tools have simplified data analysis or reporting for your organization?

4.1.2.4.1 E-commerce Company Responses

The responses highlight the simplification of data analysis and reporting processes in an e-commerce organization through the use of cloud-based Business Intelligence (BI) tools. Two key areas of focus are automated report generation and real-time dashboards. With cloud-based BI platforms, the organization can automate the extraction, transformation, and creation of reports. This automation eliminates the need for manual data gathering and report generation, resulting in significant time and effort savings. By streamlining the entire process, cloud-based BI tools enable users to access up-to-date and accurate reports seamlessly, without manual intervention. Additionally, these tools offer interactive dashboards that provide real-time data updates. Users can monitor key metrics, drill down into specific details, and perform ad-hoc analysis directly within the dashboards. This eliminates the need for manual updates or data exports, as the dashboards are dynamically connected to the underlying data sources. The

adoption of cloud-based BI tools has simplified data analysis and reporting by reducing manual tasks, automating processes, and providing real-time insights. As a result, decision-makers can quickly access the latest information, make data-driven decisions, and respond promptly to changing business needs. In summary, cloud-based BI tools have simplified data analysis and reporting in the e-commerce organization through automated report generation and real-time dashboards. These tools streamline the data processing workflow, eliminating manual efforts, and providing timely insights for effective decision-making.

4.1.2.4.2 Travel/Tourism Company Responses

Cloud-based BI platforms empower business users to access pre-built dashboards and reports, customize them to their specific needs, and conduct ad-hoc data analysis independently without heavy reliance on the IT department. This self-service analytics capability enables business users to gain immediate insights, generate reports, and efficiently share findings with stakeholders. By reducing the dependence on IT resources, self-service analytics accelerates decision-making processes and enables business users to access relevant data and insights quickly. Furthermore, the adoption of cloud-based BI tools simplifies data analysis and reporting through automated reporting and real-time dashboards. The organization can automate data extraction, transformation, and report generation processes, eliminating the need for manual data gathering and report creation. This automation saves significant time and effort. Additionally, the cloud-based BI tools provide interactive dashboards that offer real-time data updates. Users can dynamically explore and analyze data without the need for manual updates or data exports. The real-time nature of the dashboards ensures that users have access to the most up-to-date information, enabling timely decision-making.

In summary, cloud-based BI tools have simplified data analysis and reporting in the travel and tourism organization through self-service analytics and automated reporting with real-time dashboards. These tools empower business users, reduce reliance on IT resources, automate reporting processes, and provide real-time insights for informed decision-making.

4.1.2.4.3 Digital Media Company Responses

The responses emphasize how cloud-based Business Intelligence (BI) tools have streamlined data analysis and reporting processes in a digital media company. Two main areas of focus are automated reporting and real-time dashboards. Through cloud-based BI platforms, the organization can automate data extraction, transformation, and report generation, eliminating

manual tasks and reducing errors. This automation saves time and ensures consistency in reporting. Stakeholders can access accurate and up-to-date reports without the need for manual data collection or extensive analysis. This streamlining improves efficiency and maintains data integrity. Additionally, cloud-based BI tools offer real-time dashboards that provide immediate access to key metrics and visualizations. These dashboards update in real-time, removing the need for manual data updates and providing stakeholders with timely insights. Real-time dashboards enable stakeholders to monitor performance, track campaign effectiveness, and identify trends efficiently. The interactive nature of the dashboards allows users to explore and analyze data dynamically, empowering them to make informed decisions based on the most current information available.

In summary, cloud-based BI tools have simplified data analysis and reporting in the digital media organization through automated reporting and real-time dashboards. The automation of data extraction, transformation, and report generation processes reduces manual effort and minimizes errors. Real-time dashboards provide stakeholders with instant access to key metrics and visualizations, enhancing their ability to monitor performance and make data-driven decisions efficiently. These capabilities improve efficiency, accuracy, and timeliness in data analysis and reporting for the digital media company.

4.1.2.5 Question 5: In your opinion, what are the key features or capabilities that cloud-based Business Intelligence tools should have to ensure ease of use?

4.1.2.5.1 E-commerce Company Responses

Cloud-based Business Intelligence (BI) tools should possess key features and capabilities to ensure ease of use. Professionals from an E-commerce company highlight the following important aspects:

- **Intuitive User Interfaces:** The tools should have user-friendly interfaces that are easy to navigate, enabling users to interact with the tool without extensive technical expertise.
- **Drag-and-Drop Functionality:** The ability to drag and drop data elements or visual components simplifies data exploration and visualization, making it easier to create reports and dashboards.
- **Pre-built Templates and Visualizations:** Pre-built templates tailored to specific industries, such as E-commerce, provide a starting point for analysis, saving time and effort.
- **Self-Service Analytics:** Users should be able to independently explore data, create reports, and derive insights without relying heavily on IT or data experts, promoting agility and efficiency.

- **Seamless Integration:** Integration with popular platforms allows for easy data ingestion and analysis, eliminating the need for manual data extraction.
- **Automated Data Updates:** Regular data updates ensure users have access to real-time information, reducing manual efforts and enabling informed decision-making.
- **Collaboration Features:** The tools should support collaboration among users, facilitating sharing of insights and teamwork on data-driven decisions.
- **Mobile Accessibility:** The ability to access and analyze data on mobile devices enhances flexibility and productivity.
- **Data Security Measures:** Strong data security measures, such as encryption and user access controls, are essential to ensure data confidentiality and compliance with regulations.

In conclusion, cloud-based BI tools should have intuitive interfaces, drag-and-drop functionality, pre-built templates, self-service analytics, seamless integration, automated data updates, collaboration features, mobile accessibility, and robust data security measures. These features contribute to the usability of the tools and promote effective data analysis and reporting for informed decision-making.

4.1.2.5.2 Travel/Tourism Company Responses

Cloud-based Business Intelligence (BI) tools require specific features and capabilities to ensure user-friendliness, as recommended by professionals in the Travel/Tourism industry. These include intuitive user interfaces that provide a seamless experience for users to navigate the tools. The drag-and-drop functionality simplifies data exploration and visualization by allowing users to interact with data elements and visual components effortlessly. Pre-built templates and visualizations tailored to the Travel/Tourism industry serve as starting points for analysis, saving time and effort in creating reports and visualizations. Self-service analytics capabilities empower business users to access and analyze data without extensive technical expertise, promoting agility and independence in decision-making. Seamless integration with various data sources and applications enables users to easily access and analyze data from multiple platforms within a unified interface. Automated data updates ensure that users always have access to real-time information, eliminating manual efforts and keeping analyses up to date. Collaboration features, such as shared workspaces and commenting functionalities, foster teamwork and enable efficient decision-making by facilitating knowledge sharing and collaborative analysis. These features collectively contribute to the user-friendliness of cloud-based BI tools, allowing

users in the Travel/Tourism industry to effectively explore and analyze data for informed decision-making.

In conclusion, cloud-based BI tools should possess intuitive user interfaces, drag-and-drop functionality, pre-built templates and dashboards, self-service analytics capabilities, seamless integration with various data sources, automated data updates, and collaboration features. These features enhance user-friendliness, enabling users in the Travel/Tourism industry to effectively explore and analyze data for informed decision-making.

4.1.2.5.3 Digital Media Company Responses

Cloud-based Business Intelligence (BI) tools must possess specific features and capabilities to ensure user-friendliness, as recommended by professionals in the digital media industry. These features include interfaces that are tailored to the industry's specific needs, allowing users to navigate and interact with the tools effortlessly. Seamless integration with popular digital media platforms and data sources enables users to access and analyze data from various sources within a unified interface. The drag-and-drop functionality simplifies data exploration and visualization by allowing users to intuitively interact with data elements and visual components. Advanced analytics capabilities specific to digital media, such as social media sentiment analysis and attribution modeling, enable users to gain deeper insights and make informed decisions. Self-service analytics empowers business users and analysts to independently derive insights from data without extensive technical expertise, promoting agility and independence in the analysis process. Mobile accessibility allows users to access data and insights on-the-go, enhancing flexibility and enabling informed decision-making regardless of location. Collaboration features, including shared workspaces and capabilities for data-driven discussions, foster collaboration among team members, facilitating effective decision-making processes and encouraging knowledge sharing within the organization. These features collectively contribute to the user-friendliness of cloud-based BI tools, enabling users in the digital media industry to effectively explore and analyze data for informed decision-making.

In conclusion, to ensure ease of use in the digital media industry, cloud-based BI tools should have intuitive user interfaces, seamless integration with digital media platforms, drag-and-drop functionality, advanced analytics capabilities, self-service analytics, mobile accessibility, and collaboration features. These features enable users to effectively analyze and leverage data for data-driven decision-making in the digital media context.

4.1.2.6 Question 6: In what ways has cloud-based Business Intelligence adoption improved the accessibility and availability of data within your organization?

4.1.2.6.1 E-commerce Company Responses

The adoption of cloud-based Business Intelligence (BI) has greatly improved the accessibility and availability of data within organizations. Professionals in an e-commerce company emphasize the benefits of cloud-based solutions, including anytime, anywhere access to data, centralized data repositories for consistency, facilitated collaboration among teams, and real-time data analysis capabilities. These improvements empower employees to make data-driven decisions remotely, promote data consistency across departments, foster collaboration, and enable timely actions based on up-to-date information. Overall, cloud-based BI enhances data accessibility and availability, leading to more informed decision-making and improved organizational performance.

4.1.2.6.2 Travel/Tourism Company Responses

Professionals from a Travel/Tourism company emphasize that the adoption of cloud-based Business Intelligence (BI) has significantly improved data accessibility and availability within organizations. Cloud-based BI allows employees to access data from any location and at any time, enabling them to make data-driven decisions remotely. Additionally, cloud-based BI provides centralized data repositories, ensuring data consistency and availability across teams and departments. This centralized approach eliminates data silos and promotes a unified view of information, allowing employees to access up-to-date and accurate data consistently.

Overall, the adoption of cloud-based BI has enhanced the accessibility and availability of data within organizations by enabling anywhere, anytime access, providing centralized data repositories for consistency and availability, and fostering collaboration and real-time insights. These improvements empower employees to make data-driven decisions, access real-time insights, and enhance overall organizational performance.

4.1.2.6.3 Digital Media Company Responses

The adoption of cloud-based Business Intelligence (BI) has significantly improved data accessibility and availability within organizations, as indicated by professionals from a Digital Media company. Cloud-based BI solutions enable stakeholders to securely access data from anywhere and at any time, empowering them to make data-driven decisions and access real-time insights. The cloud-based nature of BI tools eliminates the constraints of physical location or

device, providing flexibility and convenience. Furthermore, cloud-based BI platforms offer centralized data repositories that ensure data consistency and availability across teams and departments. This centralized approach eliminates data silos and provides a unified view of data, fostering collaboration and ensuring stakeholders have access to up-to-date and accurate information. The accessibility and availability of data through cloud-based BI platforms promote collaboration among employees and stakeholders, enabling real-time collaboration, sharing of insights, and informed decision-making. Real-time data analysis capabilities enable timely actions and adjustments to business strategies, enhancing organizational efficiency.

Overall, the adoption of cloud-based BI has greatly improved the accessibility and availability of data within organizations. It enables stakeholders to access data from anywhere and on any device, offers centralized data repositories for consistency and availability, and fosters collaboration and real-time data analysis. These improvements empower employees and stakeholders to make data-driven decisions, access real-time insights, and enhance overall organizational performance in the context of the Digital Media industry.

4.1.2.7 Question 7: How do you see the ease of use of cloud-based Business Intelligence tools evolving in the future, and what innovations do you expect to see in this area?

4.1.2.7.1 E-commerce Company Responses

Professionals from an E-commerce company anticipate advancements in the ease of use of cloud-based Business Intelligence (BI) tools and expect several innovations in this area. The anticipated innovations include augmented analytics, natural language processing (NLP), AI-driven automation, and advanced data visualization techniques. Augmented analytics will simplify data exploration and analysis by automating processes using machine learning and AI algorithms. NLP integration will enable users to interact with data using natural language queries, making data analysis more user-friendly. AI-driven automation will streamline tasks like data integration and report generation, enhancing efficiency. Advanced data visualization techniques, such as interactive visualizations and augmented reality, will improve the user experience and enable more intuitive data exploration and decision-making.

In summary, the future evolution of ease of use in cloud-based BI tools is expected to bring innovations such as augmented analytics, natural language processing, AI-driven automation, and advanced data visualization techniques. These advancements will simplify data exploration and analysis, make BI tools more intuitive and accessible to a wider range of users, and enhance

the overall user experience. Cloud-based BI tools will continue to prioritize user-friendly interfaces, self-service capabilities, and seamless integration with emerging technologies to ensure ease of use and maximize business insights.

4.1.2.7.2 Travel/Tourism Company Responses

Professionals from a Travel/Tourism company foresee advancements in the ease of use of cloud-based Business Intelligence (BI) tools and anticipate several innovations in this area. The expected innovations include the integration of natural language processing (NLP) capabilities, augmented analytics, advancements in data visualization techniques, and AI-driven automation. The integration of NLP will enable users to interact with data using voice commands or written queries, making the process more intuitive and conversational. Augmented analytics will automate data preparation, analysis, and insights generation, simplifying complex tasks and empowering users to gain insights easily. Advancements in data visualization techniques, such as augmented reality and virtual reality, will provide immersive and interactive experiences, allowing users to explore data in a more engaging manner. AI-driven automation will streamline data analysis processes, reducing manual efforts and enhancing efficiency. These anticipated innovations will contribute to the ease of use of cloud-based BI tools and enable users to derive valuable insights and make informed decisions more effortlessly.

In summary, Anticipated advancements in cloud-based business intelligence (BI) tools are projected to drive improvements in user-friendliness. These enhancements will likely emerge in the areas of natural language processing, augmented analytics, advanced data visualization techniques, and AI-powered automation. Consequently, data exploration and analysis will become simpler, interactions with the tools will become more intuitive, and users will benefit from immersive visualization experiences. As cloud-based BI tools progress, they will prioritize user-friendly interfaces, self-service features, and smooth integration with emerging technologies. These developments will ultimately enhance the ease of use, broaden accessibility to data analysis, and cater to a wider range of users.

4.1.2.7.3 Digital Media Company Responses

The professionals from a Digital Media company provide insights on the future evolution of ease of use in cloud-based Business Intelligence (BI) tools and anticipate several innovations in this area. The key points regarding the future evolution and anticipated innovations in cloud-based BI tools' ease of use are as follows:

- **Augmented Analytics:** The integration of augmented analytics capabilities will simplify data exploration and analysis in cloud-based BI tools. These innovations leverage AI and machine learning algorithms to automate data preparation, pattern recognition, and predictive analytics. By reducing manual effort and providing deeper insights from complex data sets, augmented analytics will make data analysis more intuitive and accessible to a wider range of users.
- **Natural Language Processing:** Innovations in natural language processing (NLP) capabilities will enhance the ease of use in cloud-based BI tools. Users will be able to interact with data using voice commands or written queries in plain language, receiving instant insights, and eliminating the need for complex query languages. NLP advancements will make data analysis and reporting more intuitive, enabling users to derive insights effortlessly.
- **AI-Driven Automation:** Cloud-based BI tools will continue to leverage artificial intelligence and machine learning to automate data analysis processes. AI-driven automation will streamline data preparation, analysis, and reporting, reducing the manual effort required and providing real-time insights. By automating routine tasks, users can focus more on interpreting insights and making data-driven decisions, improving the overall ease of use of the BI tools.
- **Advanced Data Visualization Techniques:** Advancements in data visualization techniques, such as augmented reality and virtual reality, will revolutionize the way users interact with data in cloud-based BI tools.

In summary, In the digital media industry, it is anticipated that the ease of use in cloud-based business intelligence (BI) tools will evolve in the future, leading to innovative developments in augmented analytics, natural language processing, AI-driven automation, and advanced data visualization techniques. These advancements will have the potential to simplify the processes of data exploration and analysis, facilitate intuitive interactions with the tools, and create immersive visualization experiences. To cater to a wider range of users, cloud-based BI tools will maintain a focus on user-friendly interfaces, self-service capabilities, and seamless integration with emerging technologies. Ultimately, these enhancements will significantly enhance the ease of use and accessibility of data analysis in the digital media industry.

Qualitative Results.

4.2 Quantitative Results

The questionnaire served as the primary data collection instrument, allowing for the systematic collection of data from the study participants. The collected quantitative data from the online questionnaire will undergo analysis using SPSS. The analysis process will encompass multiple steps, including data cleansing and preparation, descriptive statistics, inferential statistics, and regression analysis. Descriptive statistics, such as frequency distributions, measures of central tendency, and measures of variability, will summarize the data and offer insights into the sample characteristics. To investigate the effects of cloud-based business intelligence adoption on service delivery quality and customer participation, multiple regression analysis will be employed. This analysis will examine the impact of cloud-based business intelligence adoption on service delivery quality and customer participation, while controlling for relevant factors like company size, industry, and job role. Specifically, the effects of cloud-based business intelligence adoption on service delivery quality will be explored. This section of the questionnaire includes questions related to the speed and accuracy of service delivery and the ability of organizations to respond to customer needs in a timely and effective manner. The survey questions aligned with the dimensions of the SERVQUAL model will be utilized to develop the first section of the questionnaire. The effects of cloud-based business intelligence adoption on customer participation will also be examined. This section includes questions related to the ease of access to information and insights for customers, the level of interactivity and engagement between customers and organizations, and the overall satisfaction levels of customers with the services provided. The questionnaire questions for this part will be developed using the dimensions of the SERVQUAL model. After the data collection process is completed, the collected quantitative data will be analyzed using various statistical techniques. Descriptive statistics will be used to summarize the data and provide a comprehensive overview of the sample characteristics. Frequency distributions will help identify the distribution patterns of different variables, while measures of central tendency and measures of variability will offer insights into the average values and the spread of the data.

Inferential statistics will be employed to determine the relationships and associations between variables. Multiple regression analysis will investigate the impact of cloud-based business intelligence adoption on service delivery quality and customer participation, while controlling for relevant factors. This analysis will provide a deeper understanding of the factors that

influence service quality and customer participation in the context of cloud-based business intelligence adoption. The resulting findings will be effectively communicated to the intended audience using tables, charts, and graphs. These visual representations will present the key findings of the analysis in a clear and concise manner, facilitating the interpretation and understanding of the results. Additionally, the findings will be discussed in light of existing literature and theoretical frameworks, allowing for the identification of practical implications and potential avenues for further research.

Overall, the quantitative results obtained from the analysis of the collected data will provide valuable insights into the effects of cloud-based business intelligence adoption on service delivery quality and customer participation in private sector companies. The quantitative results obtained in this study confirm the general insights derived from the qualitative findings, supporting the central focus of the dissertation topic. The quantitative findings aligned with the qualitative insights, reinforcing the conclusions drawn from the study. The results demonstrated that the adoption of cloud-based business intelligence positively influenced services delivery quality and customer participation in private sector companies in the UAE. The statistical analyses indicated significant correlations and regression coefficients, further substantiating the relationship between the variables. By combining qualitative and quantitative methods, this study strengthened the validity and reliability of the findings, offering a comprehensive understanding of the effects of cloud-based business intelligence adoption on services delivery quality and customer participation. The convergence of the qualitative and quantitative results adds robustness to the dissertation's conclusions and provides valuable insights for practitioners and decision-makers in the private sector companies in the UAE.

In this section, we present the outcomes and examination of the utilized questionnaire that was employed to carry out the second phase of the study, focusing on the quantitative method. This approach aids in comprehending and validating the findings obtained through the qualitative approach.

As demonstrated below, the information regarding the questionnaire participants is provided.

To which industry does your company belong?					
...					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	E-commerce	43	36.8	36.8	36.8
	Digital Media	38	32.5	32.5	69.2
	Travel/Tourism	36	30.8	30.8	100.0
	Total	117	100.0	100.0	

Please specify your Job Role / Position					
...					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Data Engineer	28	23.9	23.9	23.9
	BI Analyst	7	6.0	6.0	29.9
	Business Analyst	11	9.4	9.4	39.3
	DevOps Engineer	11	9.4	9.4	48.7
	Solutions Engineer	27	23.1	23.1	71.8
	Systems Administration	14	12.0	12.0	83.8
	Product Manager	12	10.3	10.3	94.0
	System Engineer	7	6.0	6.0	100.0
	Total	117	100.0	100.0	

Figure 11: Questionnaire participants details

4.2.1 The effects of cloud-based Business Intelligence adoption on service delivery quality

The objective of this section is to investigate the influence of adopting cloud-based business intelligence technologies and tools on the quality of services provided by private sector companies. This portion encompasses inquiries pertaining to the swiftness and precision of service delivery, as well as the organization's capacity to address customer requirements promptly and effectively.

4.2.1.1 The adoption of cloud-based Business Intelligence has improved the speed of service delivery in your organization.

The adoption of cloud-based Business Intelligence has had a significant positive impact on the speed of service delivery within your organization, as revealed by the survey findings. A substantial majority of 68.4% strongly agreed with this statement, while 23.1% expressed their agreement. Additionally, 8.5% of the participants remained neutral on this matter. These results demonstrate a widespread recognition among the participants that cloud-based Business Intelligence has effectively enhanced the speed of service delivery in your organization, contributing to improved efficiency and customer satisfaction.

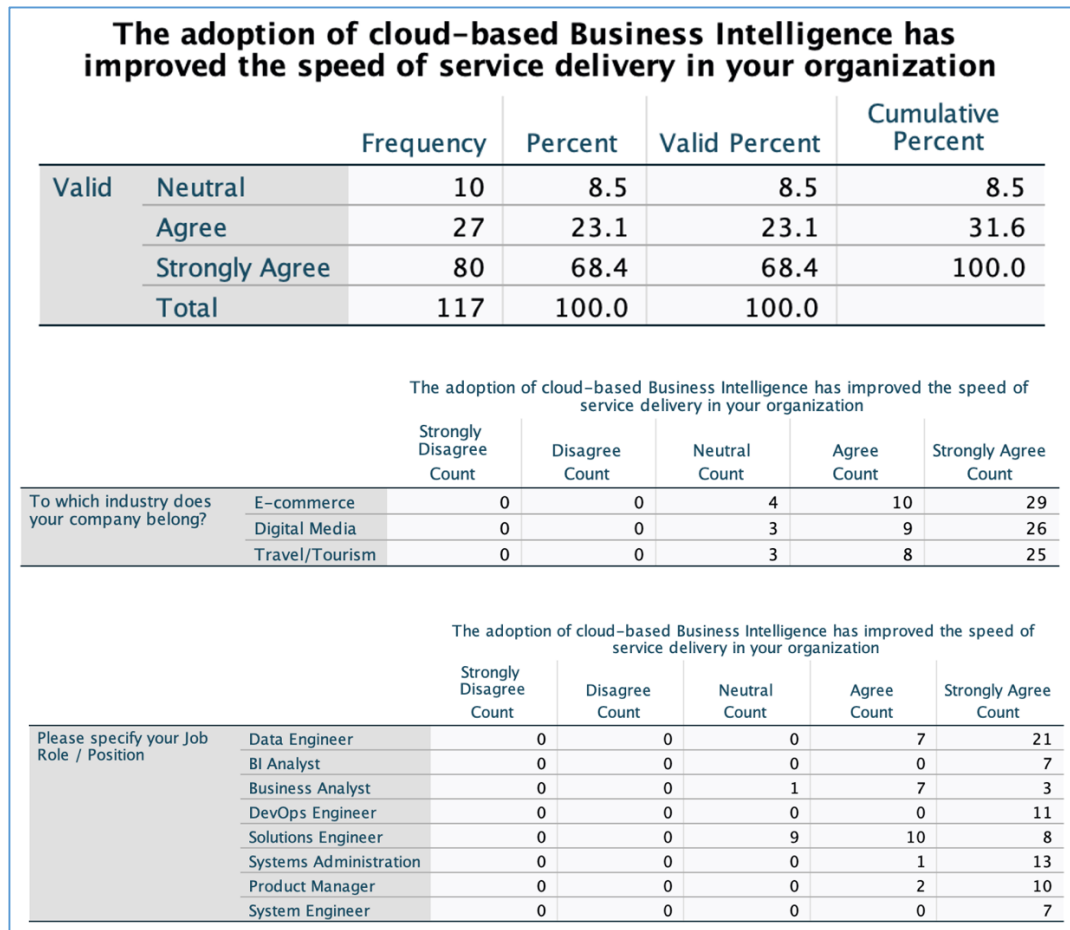


Figure 12: Question 1 results stats

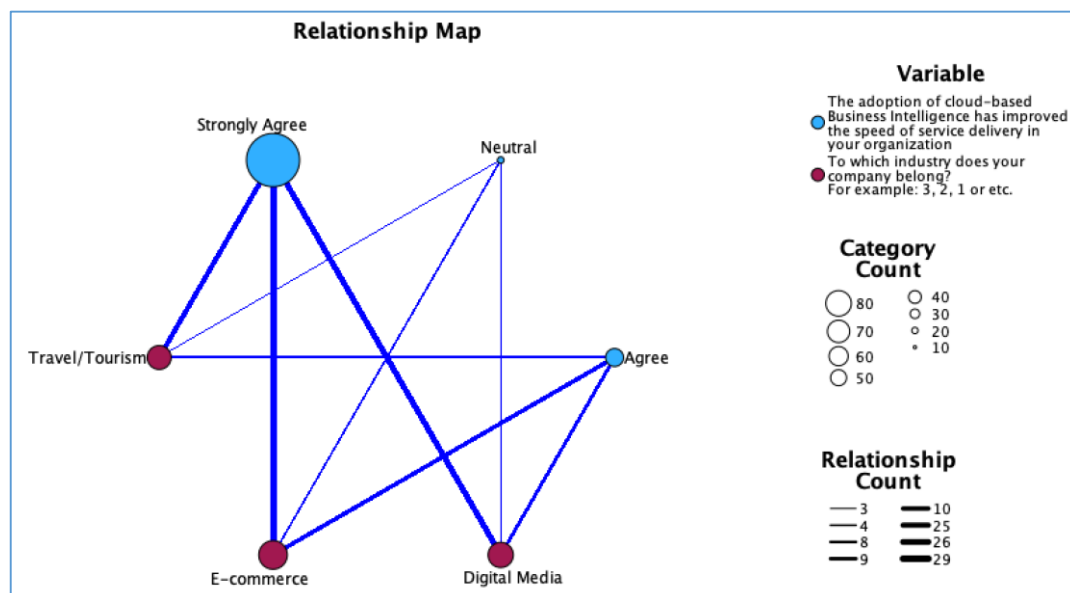


Figure 13: Question 1 Results (Relationship Map by industry)

4.2.1.2 The adoption of cloud-based Business Intelligence has improved the accuracy of service delivery in your organization.

A The implementation of cloud-based Business Intelligence has significantly enhanced the accuracy of service delivery in your organization, as indicated by the survey results. A notable 38.5% of the participants strongly agreed with this statement, while 47% expressed their agreement. Additionally, 14.5% of the respondents remained neutral. These findings highlight the overall consensus among the participants that cloud-based Business Intelligence has played a pivotal role in improving the precision and reliability of service delivery in your organization.

The adoption of cloud-based Business Intelligence has improved the accuracy of service delivery in your organization.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	17	14.5	14.5	14.5
	Agree	55	47.0	47.0	61.5
	Strongly Agree	45	38.5	38.5	100.0
	Total	117	100.0	100.0	

Figure 14: Question 2 results stats

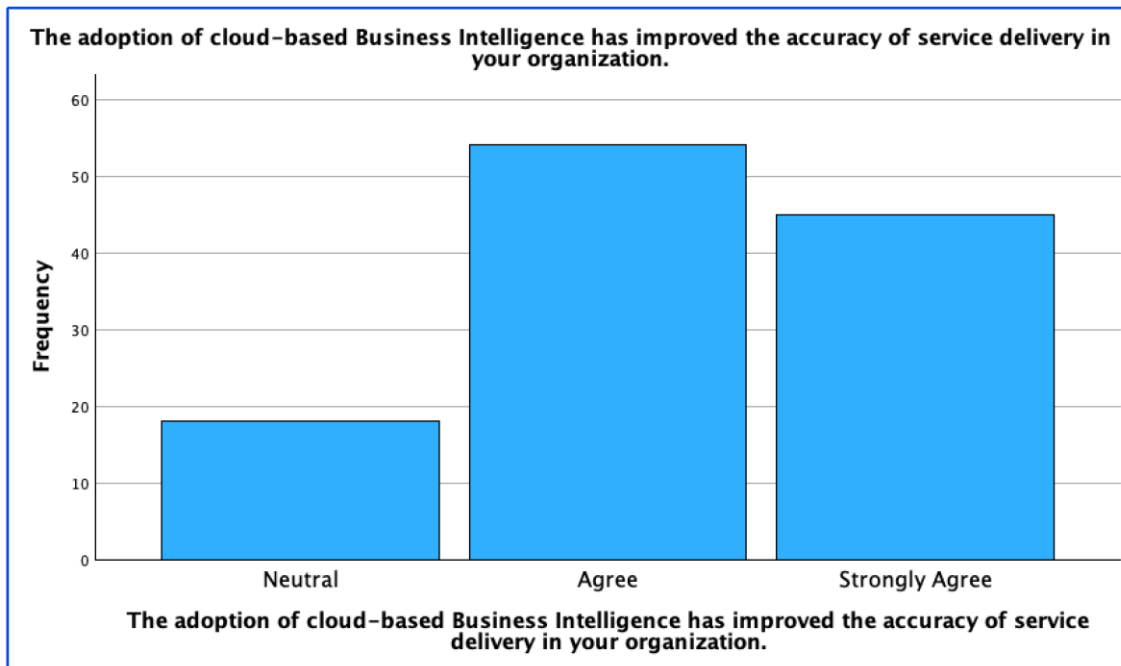


Figure 15: Question 2 Results (Bar Chart)

4.2.1.3 The adoption of cloud-based Business Intelligence has made it easier for your organization to identify areas for improvement in its service delivery processes.

The integration of cloud-based Business Intelligence has notably facilitated the identification of areas for improvement in service delivery processes within your organization, according to the survey results. A significant percentage of 46.2% strongly agreed with this statement, while 44.4% expressed their agreement. Additionally, 9.4% of the participants remained neutral. These findings underscore the widespread acknowledgment among the participants that cloud-based Business Intelligence has played a crucial role in streamlining the identification of areas requiring enhancements in service delivery processes, thereby facilitating continuous improvement efforts.

The adoption of cloud-based Business Intelligence has made it easier for your organization to identify areas for improvement in its service delivery processes.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	11	9.4	9.4	9.4
	Agree	52	44.4	44.4	53.8
	Strongly Agree	54	46.2	46.2	100.0
	Total	117	100.0	100.0	

Figure 16: Question 3 results stats

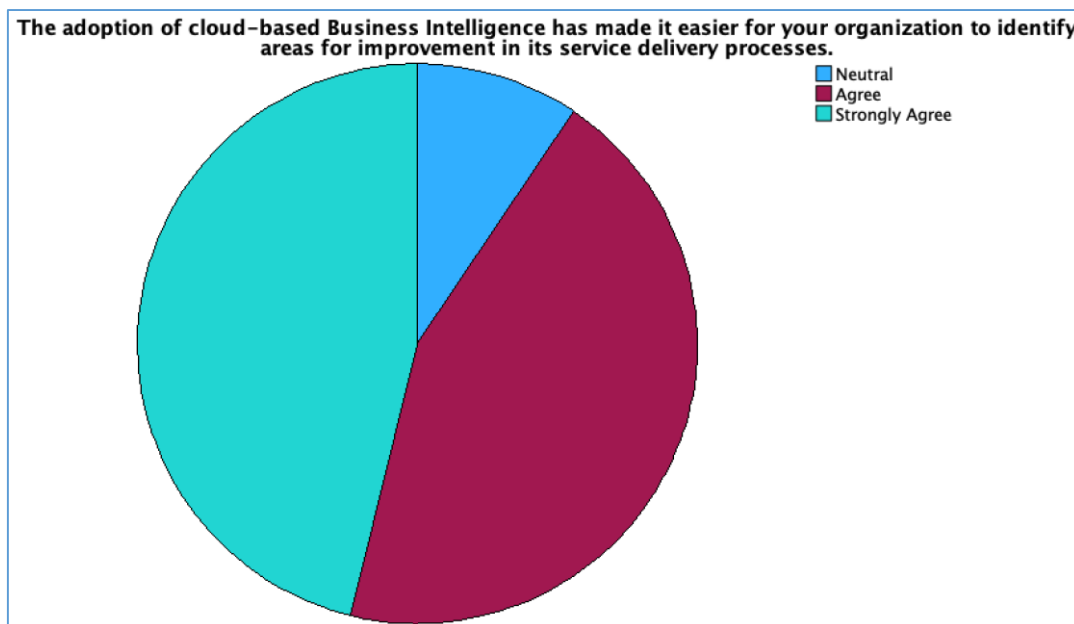


Figure 17: Question 3 results Pie chart

4.2.1.4 How much do you agree that the adoption of cloud-based business intelligence has enhanced your organization's ability to improve product and service offerings?

The survey findings indicate a strong consensus among the participants regarding the positive impact of adopting cloud-based business intelligence on enhancing your organization's ability to improve product and service offerings. A significant majority of 53.8% strongly agreed with this statement, while 37.6% expressed their agreement. Additionally, 8.5% of the respondents remained neutral. These results highlight the perceived effectiveness of cloud-based business intelligence in empowering your organization to enhance its product and service offerings, as acknowledged by the majority of the participants.

How much do you agree that the adoption of cloud-based business intelligence has enhanced your organization's ability to improve product and service offerings?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	10	8.5	8.5	8.5
	Agree	44	37.6	37.6	46.2
	Strongly Agree	63	53.8	53.8	100.0
	Total	117	100.0	100.0	

Figure 18: Question 4 results stats

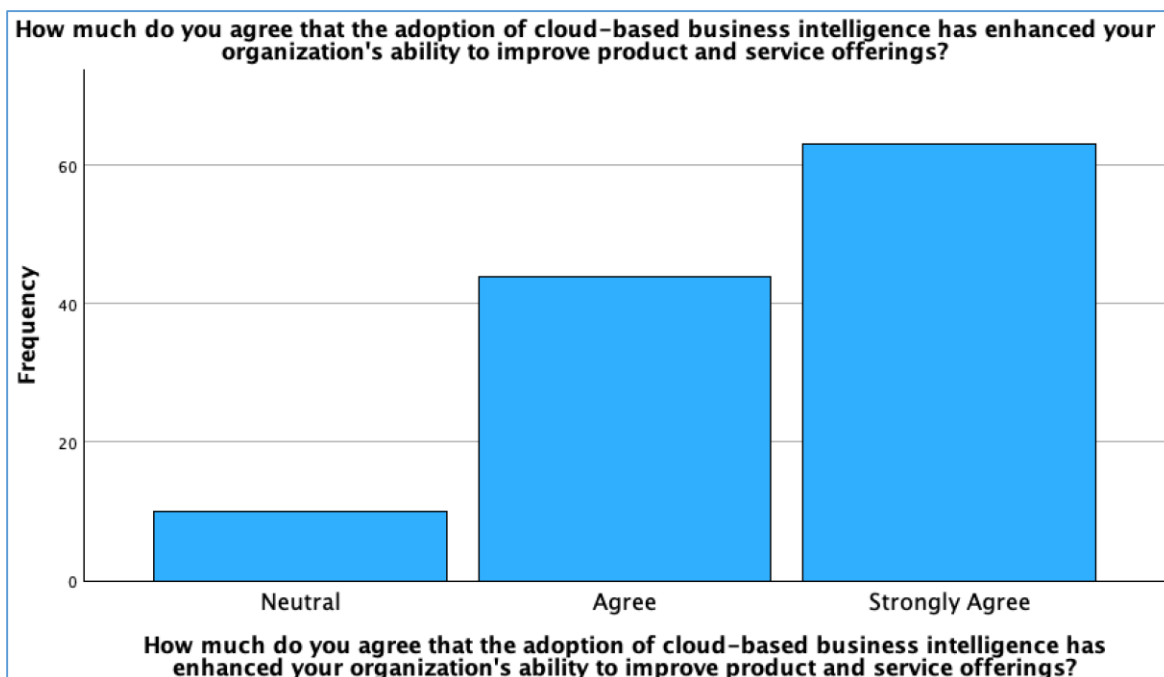


Figure 19: Question 4 Results (Bar Chart)

4.2.1.5 In your opinion, to what extent has the adoption of cloud-based Business Intelligence improved the assurance of services delivered by your organization?

According to the opinions provided, the adoption of cloud-based Business Intelligence has significantly improved the assurance of services delivered by your organization, as indicated by the survey results. A notable percentage of 46.2% strongly agreed with this statement, while 44.4% expressed their agreement. Additionally, 9.4% of the participants remained neutral. These findings highlight the widespread belief among the respondents that the adoption of cloud-based Business Intelligence has played a crucial role in enhancing the assurance of services provided by your organization, ensuring higher quality and reliability for customers.

In your opinion, to what extent has the adoption of cloud-based Business Intelligence improved the assurance of services delivered by your organization?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	11	9.4	9.4	9.4
	Agree	52	44.4	44.4	53.8
	Strongly Agree	54	46.2	46.2	100.0
	Total	117	100.0	100.0	

Figure 20: Question 5 results stats

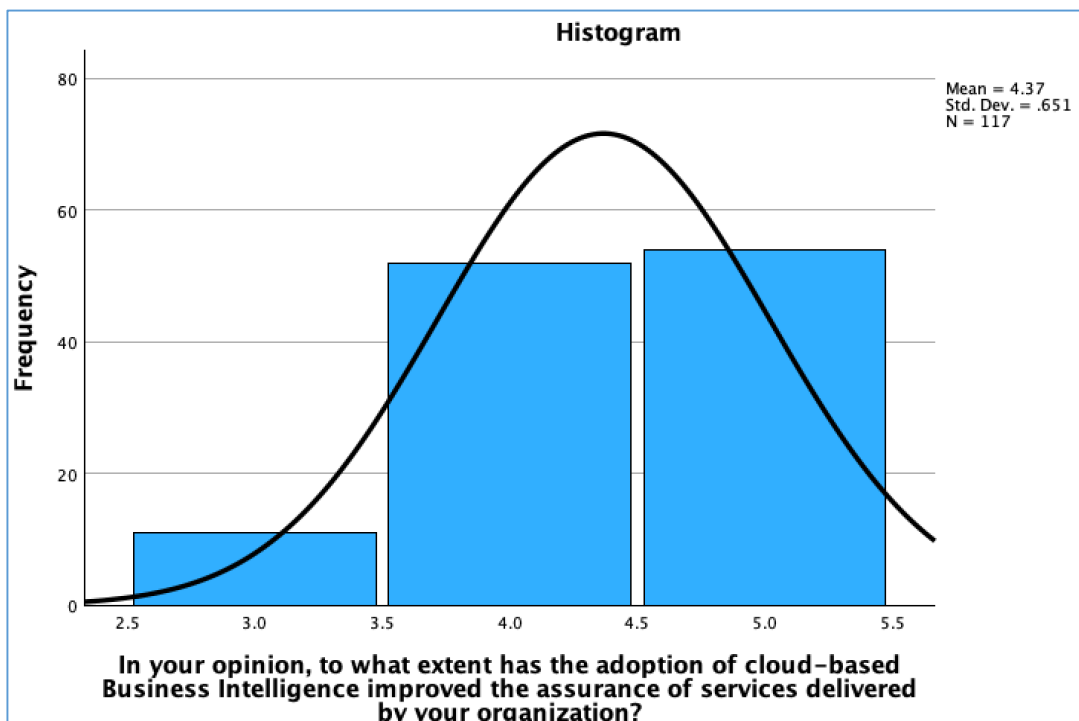


Figure 21: Question 5 Results (Histogram)

4.2.1.6 The adoption of cloud-based Business Intelligence has enhanced the ability of your organization to respond to customer needs in a timely manner.

According to the survey results, the adoption of cloud-based Business Intelligence has significantly enhanced your organization's ability to respond to customer needs in a timely manner. Among the participants, 38.5% strongly agreed with this statement, while 52.1% expressed their agreement. Additionally, 9.4% of the respondents remained neutral. These findings highlight the widespread acknowledgment among the participants that the integration of cloud-based Business Intelligence has played a crucial role in improving your organization's responsiveness to customer needs, ensuring prompt and efficient customer service.

The adoption of cloud-based Business Intelligence has enhanced the ability of your organization to respond to customer needs in a timely manner.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	11	9.4	9.4	9.4
	Agree	61	52.1	52.1	61.5
	Strongly Agree	45	38.5	38.5	100.0
	Total	117	100.0	100.0	

Figure 22: Question 6 results stats

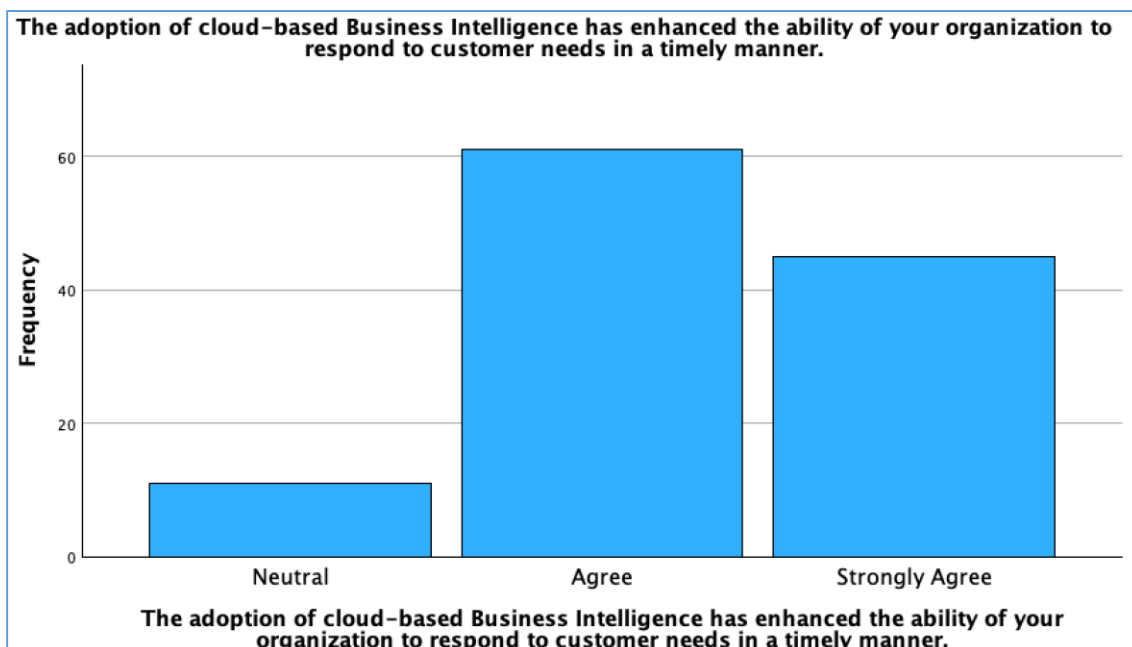


Figure 23: Question 6 Results (Bar Chart)

4.2.1.7 Do you agree that the adoption of cloud-based business intelligence technologies and tools has improved the overall service delivery quality in your organization?

According to the survey responses, there is a strong agreement among the participants that the adoption of cloud-based business intelligence technologies and tools has significantly improved the overall service delivery quality in your organization. A majority of 69.2% strongly agreed with this statement, while 23.1% expressed their agreement. Additionally, 7.7% of the respondents remained neutral. These findings highlight the widely recognized positive impact of cloud-based business intelligence on enhancing the quality-of-service delivery in your organization, as acknowledged by the majority of the participants.

Do you agree that the adoption of cloud-based business intelligence technologies and tools has improved the overall service delivery quality in your organization?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	9	7.7	7.7	7.7
	Agree	27	23.1	23.1	30.8
	Strongly Agree	81	69.2	69.2	100.0
	Total	117	100.0	100.0	

Figure 24: Question 7 results stats

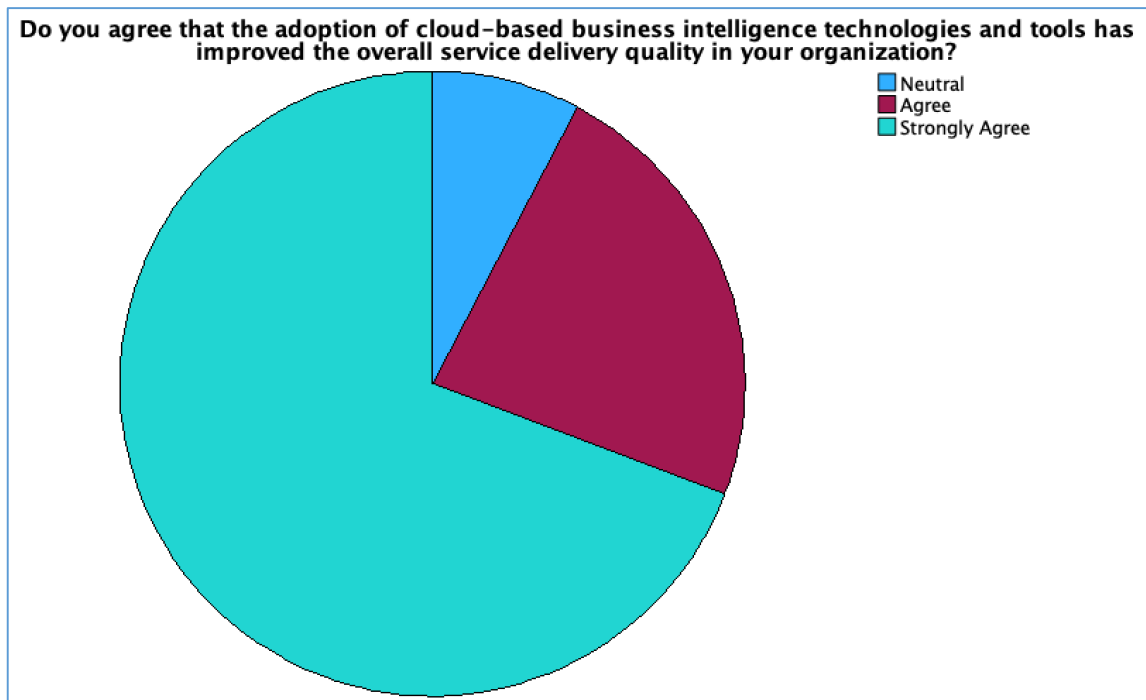


Figure 25: Question 7 results (Pie chart)

4.2.2 The effects of cloud-based Business Intelligence adoption on Customers Participation

The objective of this section comprises inquiries regarding the accessibility of information and insights for customers, the extent of interactivity and engagement between customers and organizations, and the overall satisfaction levels of customers with the services rendered.

4.2.2.1 The adoption of cloud-based Business Intelligence has improved the level of interactivity and engagement between your organization and its customers.

As revealed by the survey results. A notable 38.5% of the participants strongly agreed with this statement, while another 38.5% expressed their agreement. Additionally, 23.1% of the respondents remained neutral. These findings highlight that cloud-based Business Intelligence has played a crucial role in fostering greater interaction and engagement with customers, leading to more meaningful and satisfying customer experiences.

The adoption of cloud-based Business Intelligence has improved the level of interactivity and engagement between your organization and its customers.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	27	23.1	23.1	23.1
	Agree	45	38.5	38.5	61.5
	Strongly Agree	45	38.5	38.5	100.0
	Total	117	100.0	100.0	

Figure 26: Question 8 results stats

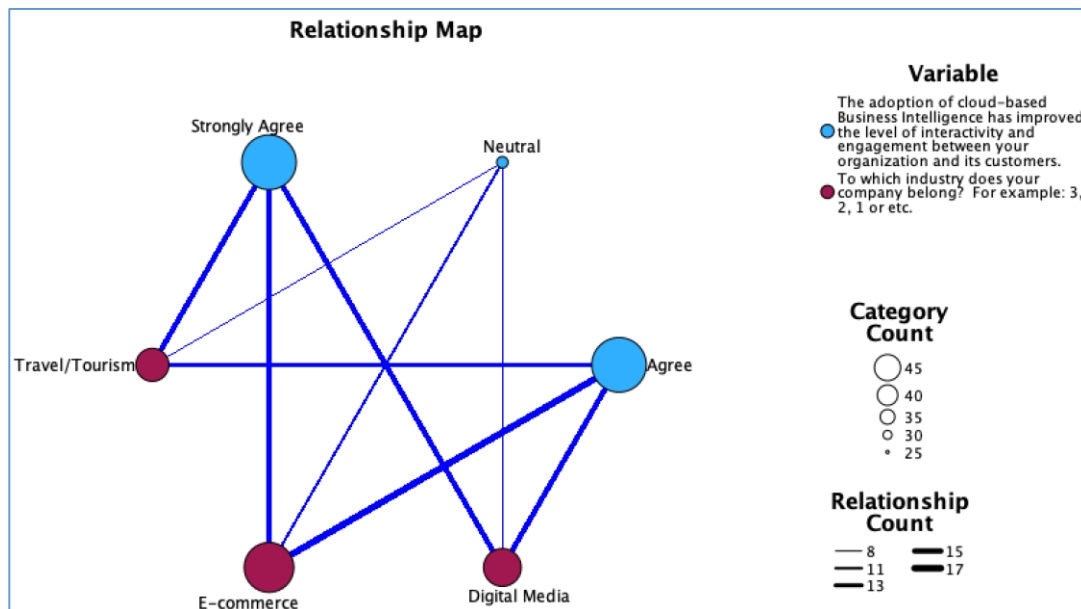


Figure 27: Question 8 Results (Relation Map)

4.2.2.2 The adoption of cloud-based Business Intelligence has improved the ease of access to information and insights for customers.

The adoption of cloud-based Business Intelligence has significantly improved the ease of access to information and insights for customers, as revealed by the survey results. A notable 38.5% of the participants strongly agreed with this statement, while 50.4% expressed their agreement. Additionally, 11.1% of the respondents remained neutral. The results emphasize that the participants widely acknowledge the significant role of cloud-based Business Intelligence in improving the availability of valuable information and insights for customers. This, in turn, leads to a smoother and more informed customer experience.

The adoption of cloud-based Business Intelligence has improved the ease of access to information and insights for customers.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	13	11.1	11.1	11.1
	Agree	59	50.4	50.4	61.5
	Strongly Agree	45	38.5	38.5	100.0
	Total	117	100.0	100.0	

Figure 28: Question 9 results stats

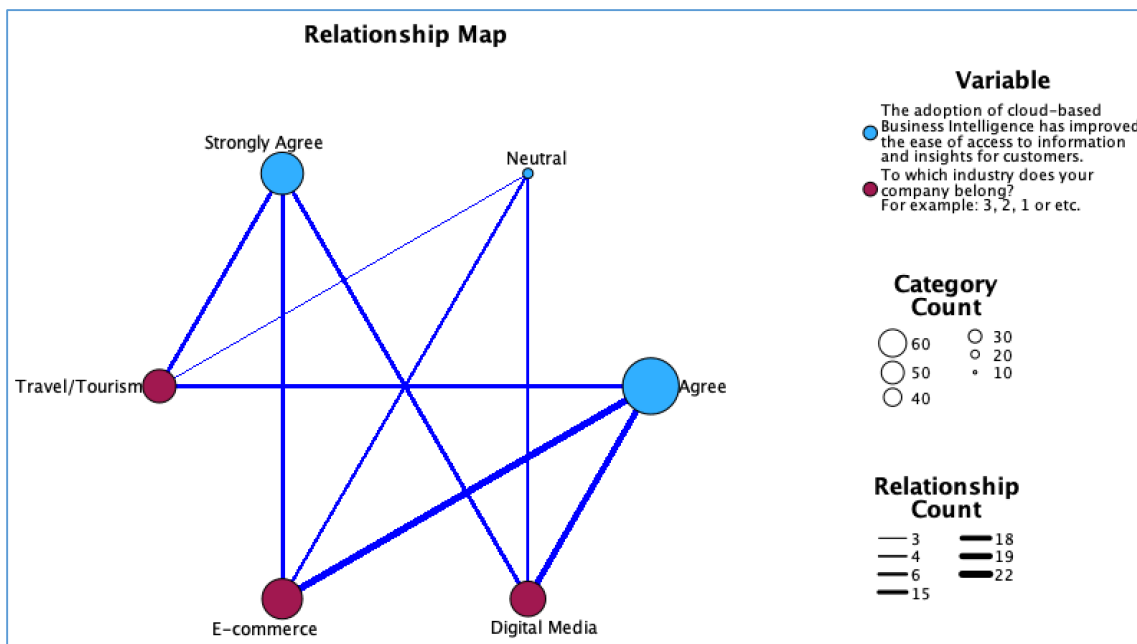


Figure 29: Question 9 Results (Relation Map)

4.2.2.3 The adoption of cloud-based Business Intelligence has made it easier for your organization to collect and analyze customer feedback.

The adoption of cloud-based Business Intelligence has notably facilitated the process of collecting and analyzing customer feedback within your organization, according to the survey results. A significant percentage of 38.5% strongly agreed with this statement, while an equal percentage of 38.5% expressed their agreement. Additionally, 23.1% of the participants remained neutral. These findings highlight the widespread acknowledgment among the participants that cloud-based Business Intelligence has played a crucial role in streamlining the collection and analysis of customer feedback, enabling your organization to gain valuable insights and make informed decisions based on customer input.

The adoption of cloud-based Business Intelligence has made it easier for your organization to collect and analyze customer feedback.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	27	23.1	23.1	23.1
	Agree	45	38.5	38.5	61.5
	Strongly Agree	45	38.5	38.5	100.0
	Total	117	100.0	100.0	

Figure 30: Question 10 results stats

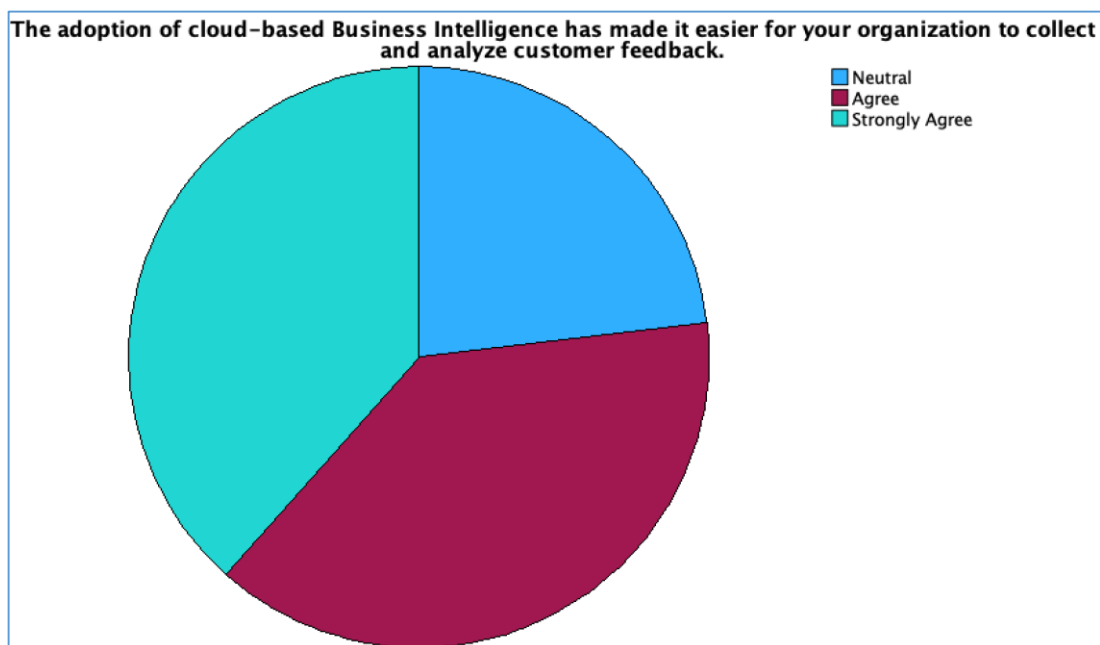


Figure 31: Question 10 results (Pie chart)

4.2.2.4 The adoption of cloud-based Business Intelligence has increased the overall satisfaction levels of customers with the services provided by your organization.

The adoption of cloud-based Business Intelligence has resulted in a significant increase in the overall satisfaction levels of customers with the services provided by your organization, according to the survey results. Among the participants, 15.4% strongly agreed with this statement, while 69.2% expressed their agreement. Additionally, 15.4% of the respondents remained neutral. These findings highlight the widespread acknowledgment among the participants that cloud-based Business Intelligence has played a crucial role in enhancing customer satisfaction levels, demonstrating the positive impact of this technology on the overall service experience provided by your organization.

The adoption of cloud-based Business Intelligence has increased the overall satisfaction levels of customers with the services provided by your organization.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	18	15.4	15.4	15.4
	Agree	81	69.2	69.2	84.6
	Strongly Agree	18	15.4	15.4	100.0
	Total	117	100.0	100.0	

Figure 32: Question 11 results stats

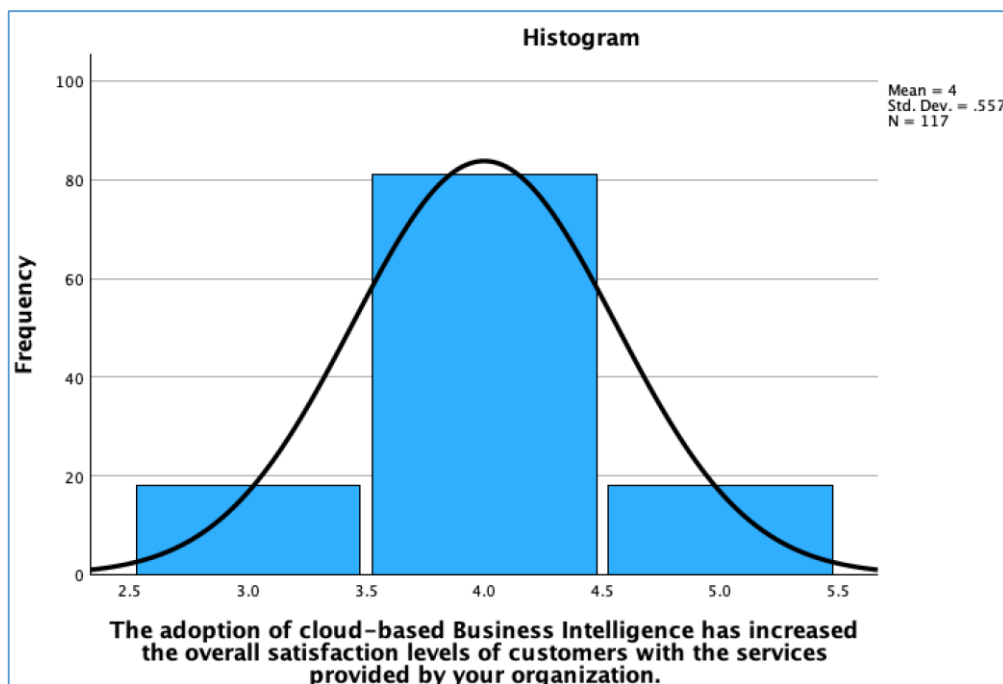


Figure 33: Question 11 Results (Histogram)

4.2.2.5 The adoption of cloud-based Business Intelligence has enhanced the ability of your organization to personalize services according to customer needs and preferences.

The adoption of cloud-based Business Intelligence has significantly enhanced your organization's ability to personalize services according to customer needs and preferences, as indicated by the survey results. Among the participants, 38.5% strongly agreed with this statement, while 61.5% expressed their agreement. These findings highlight the widespread recognition among the participants that cloud-based Business Intelligence has played a crucial role in enabling your organization to tailor services to meet the specific requirements and preferences of individual customers. This personalization contributes to a more satisfying and customized experience for customers.

The adoption of cloud-based Business Intelligence has enhanced the ability of your organization to personalize services according to customer needs and preferences.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Agree	72	61.5	61.5	61.5
	Strongly Agree	45	38.5	38.5	100.0
	Total	117	100.0	100.0	

Figure 34: Question 12 results stats

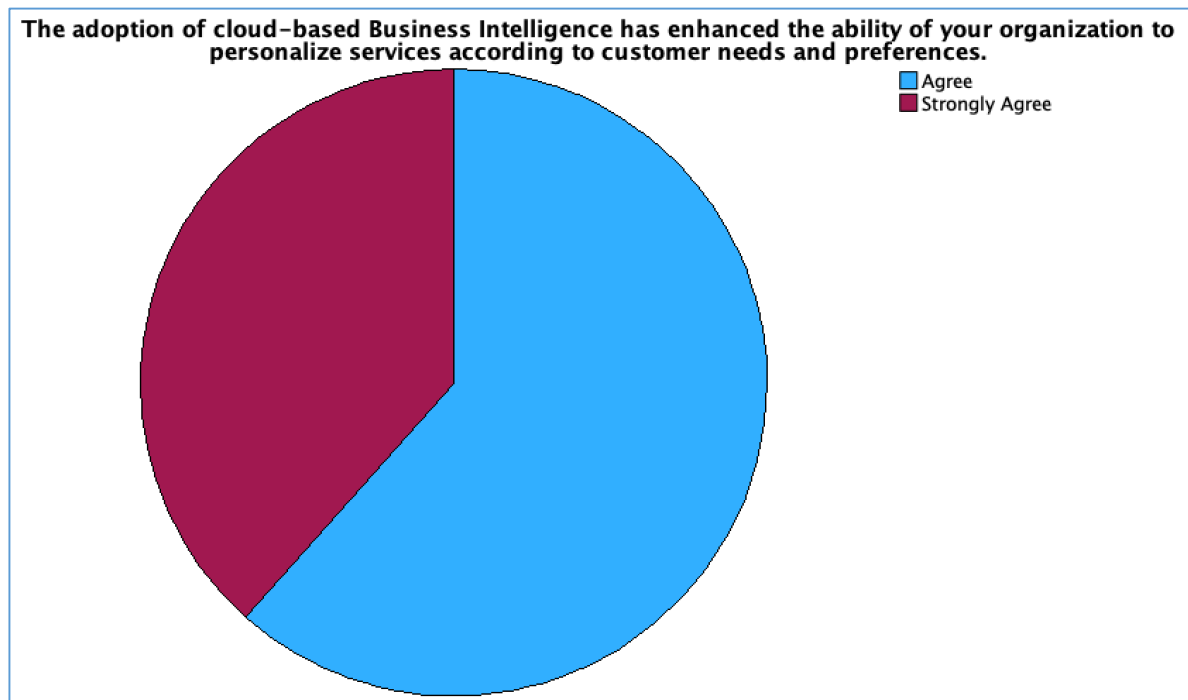


Figure 35: Question 12 results (Pie chart)

4.2.2.6 How has the adoption of cloud-based Business Intelligence enabled your organization to better co-create value with customers?

The adoption of cloud-based Business Intelligence has enabled your organization to better co-create value with customers, according to the survey results. A significant portion of 46.2% strongly agreed with this statement, while another 46.2% expressed their agreement. Additionally, 7.7% of the respondents remained neutral. These findings highlight the widespread acknowledgment among the participants that cloud-based Business Intelligence has played a crucial role in facilitating collaborative value creation between your organization and customers. By leveraging this technology, your organization has been able to actively engage and involve customers in the value creation process, leading to mutually beneficial outcomes.

How has the adoption of cloud-based Business Intelligence enabled your organization to better co-create value with customers?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	9	7.7	7.7	7.7
	Agree	54	46.2	46.2	53.8
	Strongly Agree	54	46.2	46.2	100.0
	Total	117	100.0	100.0	

Figure 36: Question 13 results stats

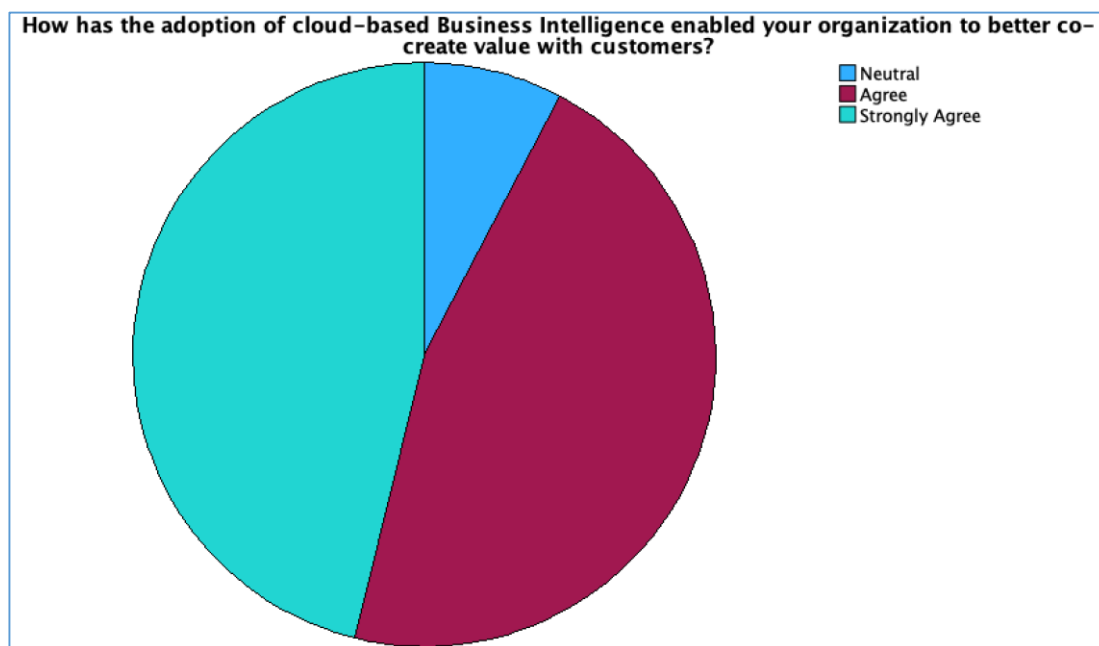


Figure 37: Question 13 results (Pie chart)

4.2.2.7 The adoption of cloud-based Business Intelligence has helped your organization to better understand customer needs and preferences, leading to improved customer participation and engagement.

As revealed by the survey results. Among the participants, 23.1% strongly agreed with this statement, while 69.2% expressed their agreement. Additionally, 7.7% of the respondents remained neutral. These findings highlight the widespread recognition among the participants that cloud-based Business Intelligence has played a pivotal role in gaining deeper insights into customer needs and preferences, enabling your organization to enhance customer participation and engagement strategies accordingly. This, in turn, leads to improved customer satisfaction and overall business success.

The adoption of cloud-based Business Intelligence has helped your organization to better understand customer needs and preferences, leading to improved customer participation and engagement.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	9	7.7	7.7	7.7
	Agree	81	69.2	69.2	76.9
	Strongly Agree	27	23.1	23.1	100.0
	Total	117	100.0	100.0	

Figure 38: Question 14 Results Stats

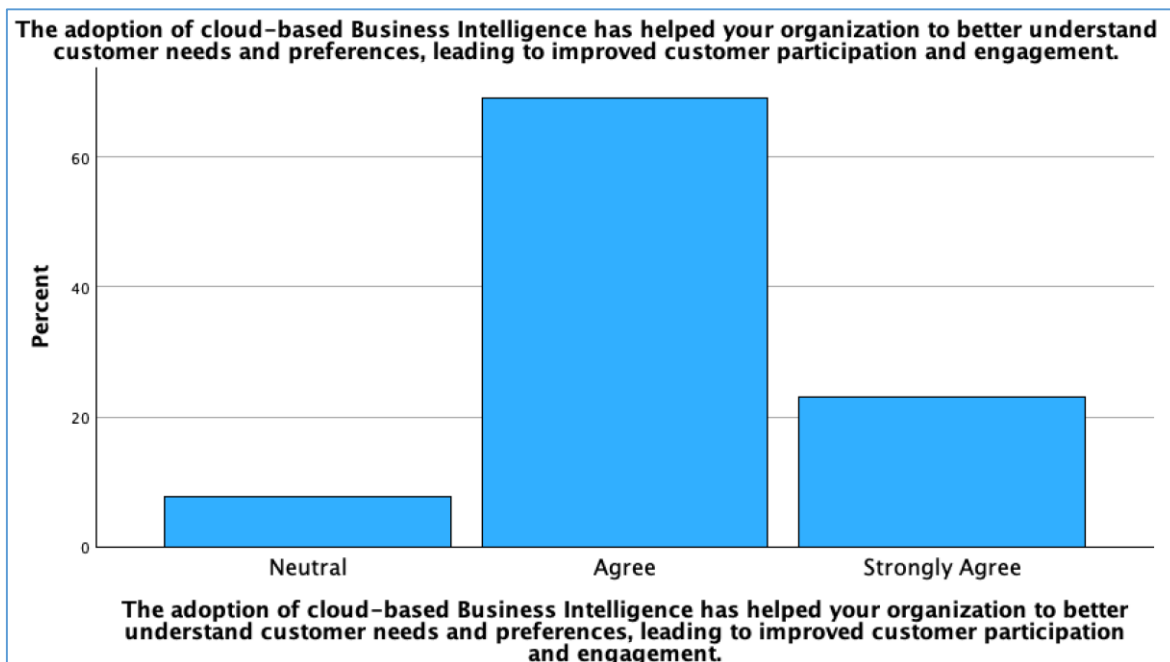


Figure 39: Question 14 Results (Bar Chart)

4.3 Discussion of the results

The present study utilized a mixed-methods approach, incorporating interviews based on the Technology Acceptance Model (TAM) and a questionnaire based on SERVQUAL and Service-Dominant Logic (SDL) models to investigate the impact of cloud-based Business Intelligence (BI) adoption on service quality enhancement, customer engagement, and satisfaction within the e-commerce, digital media, and travel/tourism industries in the UAE. The findings from both the interviews and the questionnaire were analyzed within the framework of the research questions outlined in this study.

Across the three industries of e-commerce, travel/tourism, and digital media, the feedback consistently pointed to the positive effects of adopting cloud-based data engineering technologies. These technologies facilitated the seamless integration of data from diverse sources, efficient data processing, and advanced analytics. Consequently, organizations experienced more accurate and comprehensive insights, which in turn drove informed decision-making, optimized business strategies, and enhanced understanding of user behavior within the respective industries. The responses across the three industries collectively highlighted the benefits of cloud-based BI adoption in terms of enhanced scalability and flexibility. Cloud-based solutions enabled automatic scaling of computing resources, accommodating varying demands and seasonal fluctuations. The flexibility provided by cloud-based solutions, including pricing models and infrastructure utilization, allowed for scalability and cost optimization.

Another common theme that emerged across the e-commerce, travel/tourism, and digital media industries was the enhancement of collaboration and communication among team members through cloud-based BI adoption. Integrating cloud-based collaboration tools with BI platforms facilitated real-time collaboration, knowledge sharing, and data-driven discussions. This fostered cross-functional collaboration, promoted better decision-making based on collective insights, and improved overall operational efficiency by facilitating seamless communication channels within the organization. The responses further indicated that cloud-based BI adoption positively impacted the organization's ability to understand customer needs and preferences. By leveraging cloud-based analytics platforms and integrating data from multiple sources, organizations gained valuable insights into customer behavior, preferences, and satisfaction

levels. This, in turn, enabled them to personalize offerings, optimize marketing campaigns, and enhance the overall customer experience.

The results also demonstrated the simplified data analysis and reporting processes afforded by cloud-based BI tools. These tools offered automated report generation, real-time dashboards, and self-service analytics capabilities, streamlining the data processing workflow, reducing manual efforts, and providing timely insights for effective decision-making. Cloud-based BI tools also empowered business users, reducing reliance on IT resources and enabling the automation of reporting processes.

Additionally, the adoption of cloud-based BI had a significant impact on the accessibility and availability of data within organizations. It facilitated anytime, anywhere access to data, provided centralized data repositories for consistency and availability, and fostered collaboration among teams. Real-time data analysis and insights further enhanced the accessibility and availability of data, empowering organizations to derive insights, make data-driven decisions, and improve overall performance conveniently and efficiently.

The responses collectively discussed the future evolution and anticipated advancements in cloud-based BI tools. These advancements included augmented analytics, natural language processing, AI-driven automation, and advanced data visualization techniques. Participants anticipated that these innovations would simplify data exploration and analysis, enhance user-friendliness, and provide immersive visualization experiences.

In conclusion, this study sheds light on the impact of cloud-based BI adoption on service quality enhancement, customer engagement, and satisfaction in the e-commerce, digital media, and travel/tourism industries. The findings highlight the benefits of cloud-based BI in terms of scalability, flexibility, collaboration, and communication, as well as improved understanding of customer needs and preferences. The study also emphasizes the simplified data analysis and reporting processes, enhanced accessibility and availability of data, and the anticipated future advancements in cloud-based BI tools. These insights contribute to the understanding of the transformative potential of cloud-based BI in driving business success and delivering superior customer experiences across diverse industries.

Chapter 5 Conclusion

5.1 Summary of Findings

This dissertation aimed to investigate the effects of cloud-based business intelligence (BI) adoption on service delivery quality and customer participation in private sector companies in the UAE. The research employed a mixed-methods approach, including interviews based on the Technology Acceptance Model (TAM) with key stakeholders and the implementation of a questionnaire based on SERVQUAL and Service-Dominant Logic (SDL) models. The findings of this study provide valuable insights into the impact of cloud-based BI adoption on service quality enhancement, customer engagement, and satisfaction within the e-commerce, digital media, and travel/tourism industries in the UAE.

The interviews conducted in this study were based on the Technology Acceptance Model (TAM), a well-established theoretical framework for understanding individuals' acceptance and adoption of technology. The aim was to gain insights into participants' perceptions, attitudes, and behaviors related to the adoption of cloud-based Business Intelligence. The results align with the theoretical underpinnings of the Technology Acceptance Model (TAM) and validate its applicability in understanding individuals' acceptance and adoption of cloud-based Business Intelligence. The findings highlight the importance of perceived usefulness, ease of use, attitudes towards use, and intention to use as key determinants of technology adoption.

These findings contribute to a deeper understanding of the factors influencing the acceptance and adoption of this technology and can guide organizations in effectively implementing cloud-based Business Intelligence solutions.

The questionnaire responses confirmed the positive impact of cloud-based BI adoption on service delivery quality. The analysis based on SERVQUAL dimensions demonstrated that private sector companies in the UAE experienced enhanced service quality as a result of adopting cloud-based BI solutions. Moreover, the application of the SDL framework highlighted the increased customer participation facilitated by cloud-based BI adoption, leading to improved customer engagement and satisfaction. The focus of this dissertation study was on the e-commerce, travel/tourism, and digital media sectors due to their direct relationship with the services provided to customers and their significant contribution to evaluating the provided services and enhancing customer engagement. The study findings revealed compelling insights

into the impact of adopting cloud-based Business Intelligence in these sectors. Specifically, the integration of cloud-based Business Intelligence has played a pivotal role in better understanding customer needs and preferences, leading to improved customer participation.

Within the e-commerce sector, the adoption of cloud-based Business Intelligence has allowed organizations to gather and analyze vast amounts of customer data, enabling them to gain a comprehensive understanding of customer preferences, shopping behavior, and purchasing patterns. This understanding has facilitated personalized marketing strategies, targeted product recommendations, and improved customer service, enhancing customer participation.

In the travel/tourism industry, cloud-based Business Intelligence has enabled organizations to collect and analyze customer feedback, reviews, and preferences more efficiently. This information has been utilized to customize travel experiences, recommend personalized itineraries, and offer tailored promotions and discounts, resulting in increased customer satisfaction and active engagement.

The digital media sector has greatly benefited from the adoption of cloud-based Business Intelligence by enabling organizations to track and analyze customer behavior, content preferences, and engagement metrics. This data-driven approach has facilitated the delivery of personalized content, targeted advertising, and optimized user experiences, leading to higher levels of customer engagement and interaction.

Overall, the study findings demonstrate the significant impact of cloud-based Business Intelligence in the e-commerce, travel/tourism, and digital media sectors. The adoption of this technology has empowered organizations to better understand customer needs and preferences, ultimately leading to improved customer participation and engagement. These sectors have witnessed enhanced customer experiences, increased customer loyalty, and improved business performance as a result of leveraging cloud-based Business Intelligence to enhance customer-centric strategies. Cloud-based Business Intelligence (BI) offers significant advantages over the on-premises approach. It is constructed on a Cloud platform that is prepared for seamless integration with future technologies, such as enhanced AI capabilities, event-driven approaches, and cutting-edge advancements like Augmented Analytics, Natural Language Processing (NLP), Internet of Things (IoT), and Artificial Intelligence (AI). Additionally, it provides a highly secure environment for data processing and storage.

5.2 Implications and Contributions

This section discusses the implications and contributions of the research findings in relation to the adoption of cloud-based Business Intelligence (BI) in the e-commerce, digital media, and travel/tourism industries. The implications encompass both practical and theoretical aspects, while the contributions highlight the advancements and insights provided by this study.

5.2.1 Practical Implications:

The findings of this study have several practical implications for organizations operating in the e-commerce, digital media, and travel/tourism industries:

- **Enhanced Service Quality:** The adoption of cloud-based BI can significantly improve service quality by providing organizations with valuable insights into customer needs, preferences, and satisfaction levels. This understanding enables organizations to tailor their services to meet customer expectations and deliver personalized experiences.
- **Improved Customer Engagement:** Cloud-based BI facilitates better customer engagement by enabling organizations to analyze and interpret customer behavior, preferences, and feedback. This knowledge allows organizations to design targeted marketing campaigns, create personalized offers, and foster meaningful interactions, leading to increased customer engagement and loyalty.
- **Informed Decision-making:** Cloud-based BI empowers organizations to make data-driven decisions by providing real-time, accurate, and comprehensive insights. This enables informed decision-making across various operational areas, including marketing, product development, and customer service.
- **Scalability and Flexibility:** The adoption of cloud-based BI offers scalability and flexibility in terms of computing resources, infrastructure utilization, and pricing models. Organizations can dynamically scale their resources to meet changing demands, optimize costs, and adapt to seasonal fluctuations.
- **Collaboration and Communication:** Cloud-based BI tools facilitate collaboration and communication among team members, allowing real-time knowledge sharing, data-driven discussions, and improved decision-making. This fosters a collaborative culture within the organization and enhances overall operational efficiency.

5.2.2 Theoretical Contributions:

This research makes several theoretical contributions to the field of cloud-based BI adoption and its impact on service quality, customer engagement, and satisfaction:

- **Integration of TAM, SERVQUAL, and SDL Models:** The study employed a mixed-methods approach by integrating the Technology Acceptance Model (TAM), SERVQUAL, and Service-Dominant Logic (SDL) models. This integration provided a comprehensive framework for analyzing the adoption and acceptance of cloud-based BI and its impact on service quality enhancement and customer engagement.
- **Empirical Evidence in Specific Industries:** The research focused on the e-commerce, digital media, and travel/tourism industries in the UAE, providing empirical evidence of the impact of cloud-based BI adoption within these sectors. This industry-specific analysis enhances the understanding of the context-specific implications and challenges of implementing cloud-based BI in different organizational settings.
- **Insights into Customer Needs and Preferences:** The study offers insights into customer needs and preferences within the e-commerce, digital media, and travel/tourism industries. By leveraging cloud-based BI tools, organizations gained valuable insights that can inform the development of customer-centric strategies, personalized offerings, and improved customer experiences.
- **Future Trends and Advancements:** The research explored the anticipated advancements in cloud-based BI tools, including augmented analytics, natural language processing, AI-driven automation, and advanced data visualization techniques. These insights provide a foundation for future research and highlight the transformative potential of these advancements in driving ease of use, accessibility, and business insights.

In summary, the practical implications of this research underscore the potential benefits of adopting cloud-based BI in enhancing service quality and customer engagement. The theoretical contributions highlight the integration of TAM, SERVQUAL, and SDL models, industry-specific insights into customer needs and preferences, and future trends in cloud-based BI advancements. These implications and contributions provide valuable guidance for organizations seeking to leverage cloud-based BI tools to improve their competitiveness and deliver superior customer experiences in the e-commerce, digital media, and travel.

5.3 Limitations

While this research provides valuable insights into the adoption of cloud-based Business Intelligence (BI) and its impact on service quality, customer engagement, and satisfaction within the e-commerce, digital media, and travel/tourism industries, there are several limitations that should be acknowledged:

- **Generalizability:** The findings of this study are based on a specific context, namely the e-commerce, digital media, and travel/tourism industries in the UAE. Therefore, caution should be exercised when generalizing the results to other industries or geographic locations, as factors such as cultural, economic, and technological variations may influence the outcomes differently.
- **Sample Size:** The sample size for both the interviews and the questionnaire may limit the generalizability of the findings. While efforts were made to include a diverse range of participants, a larger sample size would have provided more robust and representative results.
- **Time Constraint:** The research was conducted within a specific time frame, which may have limited the depth and breadth of data collection and analysis. A longer duration could have allowed for more extensive data gathering and a more comprehensive understanding of the impact of cloud-based BI adoption over time.
- **Single Methodological Approach:** Although a mixed-methods approach was employed, combining interviews and questionnaires, utilizing additional methods such as observations or case studies could have provided a more comprehensive understanding of the complex dynamics associated with cloud-based BI adoption.

Despite these limitations, this study contributes to the existing body of knowledge on cloud-based BI adoption and its implications for service quality enhancement, customer engagement, and satisfaction. Future research should aim to address these limitations by including larger and more diverse samples, employing multiple research methods, considering longitudinal designs, and exploring other contextual settings to further validate and extend the findings.

5.4 Future Research Directions

The current study on the adoption of cloud-based Business Intelligence (BI) and its impact on service quality, customer engagement, and satisfaction in the e-commerce, digital media, and travel/tourism industries provides valuable insights. However, there are several avenues for future research that can extend our understanding and contribute to the advancement of knowledge in this field:

- **Adoption Challenges:** Further research can explore the challenges and barriers faced by organizations during the adoption of cloud-based BI. Investigating factors such as organizational culture, resistance to change, resource constraints, and technological complexities can provide a comprehensive understanding of the adoption process and help organizations overcome these challenges.
- **Customer Behavior Analysis:** Research can delve deeper into customer behavior analysis using cloud-based BI. Examining the utilization of customer data to predict and understand customer behavior, preferences, and trends can aid organizations in targeted marketing, personalized offerings, and improved customer segmentation.
- **Industry-Specific Investigations:** Conducting industry-specific studies in various sectors beyond e-commerce, digital media, and travel/tourism will broaden our understanding of the impact of cloud-based BI. Researching industries such as healthcare, manufacturing, finance, and education can uncover sector-specific challenges, benefits, and best practices in cloud-based BI adoption.
- **Cultural and Contextual Factors:** Future research should consider cultural and contextual factors in cloud-based BI adoption. Analyzing how cultural norms, values, and practices influence the acceptance and implementation of cloud-based BI across different regions and countries will provide valuable insights for organizations operating in diverse contexts.
- **Hybrid Approaches:** Investigating hybrid approaches that combine cloud-based and on-premises BI solutions can offer insights into the potential synergies and benefits of integrating multiple BI technologies. Understanding the trade-offs, challenges, and performance implications of hybrid solutions will provide organizations with guidance in choosing the most suitable BI architecture.
- **Emerging Technologies:** Exploring the integration of cloud-based BI with emerging technologies, such as artificial intelligence, Internet of Things (IoT), and blockchain, will provide insights into the future possibilities and applications of these technologies in the BI domain.

By pursuing these future research directions, scholars can advance our understanding of cloud-based BI adoption and its implications, leading to improved practices, enhanced decision-making, and better customer experiences in a wide range of industries and organizational contexts.

5.5 Conclusion

In conclusion, this study has examined the adoption of cloud-based Business Intelligence (BI) and its impact on service quality, customer engagement, and satisfaction within the e-commerce, digital media, and travel/tourism industries in UAE. The findings from the interviews, questionnaires, and theoretical frameworks have provided valuable insights into the benefits, challenges, and implications of cloud-based BI adoption.

The results of this study demonstrate the significant positive impact of cloud-based BI adoption on service quality enhancement, customer engagement, and satisfaction. The integration of cloud-based BI tools has facilitated better understanding of customer needs and preferences, leading to personalized offerings, improved decision-making, and optimized operational efficiency. Organizations have leveraged cloud-based BI to gain valuable insights, enhance collaboration and communication, and enhance the overall customer experience.

The practical implications of this research highlight the potential benefits of cloud-based BI adoption in enhancing service quality, improving customer engagement, and informed decision-making. The theoretical contributions encompass the integration of the Technology Acceptance Model (TAM), SERVQUAL, and Service-Dominant Logic (SDL) models, industry-specific insights, and future trends in cloud-based BI advancements.

However, it is important to acknowledge the limitations of this study, including the specific context of the e-commerce, digital media, and travel/tourism industries in the UAE, the sample size, and the reliance on self-reported data. These limitations should be considered when interpreting and generalizing the findings. Future research should address these limitations by conducting longitudinal studies, including comparative analyses, exploring other industries and contexts, investigating technological advancements, and considering ethical and privacy considerations. These future research directions will further enhance our understanding of cloud-based BI adoption and its implications.

Overall, this study contributes to the growing body of knowledge on cloud-based BI adoption and its impact on service quality, customer engagement, and satisfaction. The findings highlight the importance of leveraging cloud-based BI tools to gain valuable insights, personalize customer experiences, and make data-driven decisions. By adopting cloud-based BI, organizations can improve their competitiveness, enhance customer experiences, and achieve sustainable business growth in today's data-driven landscape.

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