



ماجستير إدارة المشاريع
2023

تأثير الخدمات السحابية على جودة أداء العمل في القطاع العقاري بالرياض

The Impact of Cloud Services on the Quality of Work
Performance in the Real Estate Sector of Riyadh

مشرف المقرر

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Research Proposal

**Topic: The Impact of Cloud Services on the Quality of Work Performance In the
Real Estate Sector of Riyadh**

Introduction

Background

Cloud services have been rapidly transforming the way businesses operate and collaborate in workplace settings. The increased adoption of cloud services is due to their numerous advantages over traditional on-premises solutions because these services offer scalability, flexibility, cost-effectiveness, and accessibility from anywhere, making them an ideal solution for businesses of all sizes (Musamali & Muchelule, 2022). With the increasing need for remote work and collaboration, cloud services are becoming even more crucial in today's workplace environment; with cloud services, employees can easily access files and collaborate on projects from any location with an internet connection, and this has made it possible for businesses to adopt remote work models and increase productivity. Cloud services also provide a scalable solution for businesses, enabling them to easily expand or downsize their operations as needed (Dincă et al., 2019).

Businesses no longer invest in expensive hardware or software infrastructure to run their operations because the Cloud services offer a pay-as-you-go model, where businesses only pay for the services they use, making it a more affordable option for small and medium-sized businesses. Furthermore, cloud services provide enhanced security measures to protect sensitive business data (Bello et al., 2020). With advanced encryption technologies and secure data centers, cloud services ensure the privacy and confidentiality of business information. The real estate sector is a highly competitive industry that relies on effective communication, collaboration, and organization to succeed. The use of cloud services has significantly impacted the quality of work performance in the real estate sector by improving operational efficiency, increasing productivity, and enhancing collaboration (Attaran, 2017).

Cloud services have transformed the real estate sector by offering innovative tools and applications that improve operational efficiency. One of the most substantial pluses of cloud services is that they allow real estate agents to access critical business data from any location with an internet connection (Warburton, 2016). In addition, this means that agents can work from home, in the office, or while travelling, without worrying about missing any important data or information. Cloud services also offer real estate agents applications that help streamline their workflow and automate routine tasks. For example, cloud-based property management software can automate tenant screening, lease management, rent collection, and maintenance requests. These applications reduce the amount of time and effort required to perform these tasks manually, allowing agents to focus on more critical aspects of their work (Ullah et al., 2018).

Cloud services have significantly increased the productivity of real estate agents by enabling them to work more efficiently and effectively. With cloud-based tools and applications, agents can access real-time data and information, collaborate with team members, and communicate with clients more easily. Moreover, this results in faster turnaround times, improved customer service, and better client satisfaction (Garg et al., 2018). Cloud services also offer real estate agents mobile applications that allow them to work on the go; for instance, mobile applications for property management allow agents to manage their property portfolio, respond to tenant requests, and view financial reports from their mobile devices. Additionally, this increases their productivity and responsiveness to clients, making them more competitive in the market (Fraihat et al., 2021).

Cloud services have revolutionized collaboration in the real estate sector by allowing agents to work together more efficiently and effectively. With cloud-based collaboration tools, agents can share files, documents, and information with team members, clients, and vendors in real time (Shi, 2021). This improves communication, reduces errors, and enhances productivity. Cloud services also offer real estate agents virtual collaboration tools that allow them to conduct remote meetings, presentations, and inspections. For example,

video conferencing tools enable agents to conduct virtual property tours and inspections, reducing the need for physical visits and increasing efficiency (Gupta et al., 2020).

Cloud services offer real estate agents momentous cost reserves likened to outdated on-premises solutions, and the cloud-based applications eradicate the requirement for exclusive hardware, software, and infrastructure, dipping the investment and operational costs associated with running a real estate business (Shenoy, 2019). Additionally, cloud services offer real estate agents flexible pricing plans, enabling them to scale their services up or down as per their business requirements. Cloud services have significantly impacted the quality of work performance in the real estate sector by improving operational efficiency, increasing productivity, enhancing collaboration, providing enhanced security measures, and offering cost savings. With cloud-based tools and applications, real estate agents can access critical business data from any location with an internet connection and work more efficiently and effectively (Jin & McElheran, 2017).

Problem Statement

The real estate sector is a vital contributor to the economy of Riyadh, Saudi Arabia, and the industry is highly competitive and constantly evolving, requiring real estate professionals to adopt innovative tools and technologies to remain competitive. The acceptance of cloud services in the real estate sector has been on the rise, with more and more companies moving their operations to the cloud to enhance productivity, collaboration, and efficiency. However, the sector faces several challenges, including inefficient data management systems and a lack of IT capabilities that hinder productivity and limit growth opportunities. Cloud services have the potential to address these challenges by providing a cost-effective and efficient solution for managing and storing data and applications. Despite the potential benefits of cloud services, there is a lack of research on the impact of cloud services on work performance in the real estate sector in Riyadh, Saudi

Arabia. This research intends to address this gap by examining the impact of cloud services on the quality of work performance in the real estate sector of Riyadh, Saudi Arabia (Shenoy, 2019).

This research aims to fill this gap by investigating the impact of cloud services on the quality of work performance in the real estate sector in Riyadh, Saudi Arabia. Specifically, the study will explore the extent to which the use of cloud services enhances work performance in terms of productivity, competency, success, and quality of work outcomes. By addressing this research problem, the study will provide valuable insights into the potential reimbursements of cloud services for the real estate sector in Riyadh, Saudi Arabia, and contribute to the development of effective strategies for improving work performance and driving growth in the sector (Chen et al., 2022).

Research objectives

The research objectives of this research work will be:

- ❖ To examine the impact of cloud services on the quality of work performance in the real estate sector of Riyadh, Saudi Arabia.
- ❖ To identify the advantages and disadvantages of cloud services in the real estate sector of Riyadh, Saudi Arabia.
- ❖ To develop best practices for implementing cloud services in the real estate sector of Riyadh, Saudi Arabia.

Research Questions

- ❖ What impact will cloud services have on the quality of work performance in the real estate sector of Riyadh, Saudi Arabia?
- ❖ What will be the advantages and disadvantages of cloud services in the real estate sector of Riyadh, Saudi Arabia?

- ❖ What will be the best practices for implementing cloud services in the real estate sector of Riyadh, Saudi Arabia?

Significance of study

The real estate sector is a crucial sponsor of the financial system of Riyadh, Saudi Arabia, and the adoption of cloud services has the potential to enhance operational efficiency, improve collaboration and communication, and ultimately improve the quality of work performance of real estate professionals. Understanding the influence of cloud services on the real estate sector in Riyadh can inform policy decisions and strategic planning for companies in the sector, ultimately contributing to the growth and development of the industry. This research can provide insights into the disputes encountered by real estate professionals in Riyadh and how the adoption of cloud services can help to address these challenges. This information can be used by real estate companies to identify areas for improvement in their operations and develop strategies to enhance the quality of work performance of their employees (Fraihat et al., 2021).

In addition, this research can contribute to the body of knowledge on the influence of cloud services on work performance in the context of the real estate sector. As cloud services adoption continues to grow, it is important to understand how it impacts different sectors and industries and how it can be leveraged to improve work performance. This research can contribute to the understanding of the role of technology in the workplace in Saudi Arabia. As the country continues to diversify its economy and invest in technology, understanding the impact of cloud services on the real estate sector can inform broader policy decisions related to technology adoption and digital transformation. In last, this research on the influence of cloud services on the quality of work performance in the real estate sector of Riyadh, Saudi Arabia, is significant for its potential to inform policy decisions, improve operations, contribute to the body of knowledge on technology adoption in the workplace, and inform broader discussions on the role of technology in the Saudi Arabian economy (Bello et al., 2020).

Research Hypothesis

H₁: Cloud services will have a positive effect on the quality of work performance in the real estate sector of Riyadh, Saudi Arabia.

H₂: Cloud services will have a significant impact on the speed of completion of projects in the real estate sector of Riyadh, Saudi Arabia.

H₃: Cloud services will have a positive effect on the accuracy of records kept in the real estate sector of Riyadh, Saudi Arabia.

Literature Review

Property Technology is a rapidly growing sector in the real estate industry, and it involves the use of technology to improve the efficiency and effectiveness of real estate transactions, operations, and investments. PropTech refers to a wide range of technologies, including artificial intelligence (AI), automation, virtual reality (VR), blockchain, the Internet of Things (IoT), and cloud computing. These technologies are being used to automate processes, streamline operations, and improve customer experiences. The use of PropTech can lead to cost savings, increased profitability, and improved customer service. For instance, AI and automation can help to reduce costs associated with manual processes and administrative tasks (Kaur & Solomon, 2021). Additionally, the use of virtual reality helps to create immersive experiences, allowing potential buyers to virtually explore a property before making an offer. PropTech also has the potential to revolutionize the real estate industry, and for example, blockchain technology is used to securely store and transfer data related to real estate transactions, and this reduces the amount of paperwork required for transactions and makes transactions more secure. Additionally, IoT technology can be used to improve the efficiency of building maintenance, as well as to improve energy efficiency and reduce energy costs (Starr et al., 2020).

The study by Musamali & Muchelule (2022) highlighted that cloud computing practices have become increasingly relevant in improving the execution of real estate developments in Nairobi County, Kenya. The availability of cost-effective cloud-based solutions provides real estate projects with on-demand access to computing resources and storage. The most significant benefits of cloud computing practices is the ability to store and back up project data in a secure manner, and the use of cloud storage solutions like Google Drive, Microsoft OneDrive, and Dropbox ensures that project data is safe and easily accessible to authorized stakeholders. Collaboration tools are essential in managing real estate projects and can significantly enhance project performance. Cloud-based collaboration tools like Google Docs, Trello, and Asana enable team members to collaborate remotely and in real-time. This ensures that tasks are completed efficiently and project timelines are met. Additionally, cloud-based project management software solutions like Procore, PlanGrid, and Builder trend are gaining popularity in the real estate industry. These tools offer a range of features, such as scheduling, budgeting, and task management, all in one central location. By leveraging cloud-based project management software solutions, real estate projects can streamline their operations, reduce manual processes, and improve project delivery times.

In addition, Maina (2017) indicated that Digital marketing tools have revolutionized the way businesses in the real estate sector operate and engage with customers. With the increasing adoption of digital technologies, real estate businesses can leverage digital marketing tools to drive customer engagement, generate leads, and increase sales. One of the most significant effects of digital marketing tools is their ability to enhance the visibility and reach of real estate businesses. With the use of social media platforms like Facebook, Instagram, and Twitter, real estate businesses can reach a wider audience and increase their brand awareness. This allows them to showcase their properties and services to potential customers and generate leads. Digital marketing tools also enable real estate businesses to personalize their marketing messages and

target specific customer segments. By using data analytics tools like Google Analytics, real estate businesses gain insights into customer behavior and preferences, allowing them to tailor their marketing campaigns to specific customer needs. This leads to higher engagement and conversion rates, resulting in increased sales and revenue. Another significant effect of digital marketing tools is their ability to provide real-time customer support and engagement. With the use of chatbots, businesses engage with customers in real-time, answer their questions, and provide personalized support, and this results in increased customer satisfaction and loyalty, as customers feel valued and heard by the business (Ullah et al., 2021).

Chen et al. (2022) indicated that Cloud computing had become a critical technological innovation that has the potential to impact business performance in various ways. The adoption of cloud computing improved efficiency, productivity, and profitability, as well as reduced costs and enhanced data security. Empirical research was conducted by collecting data from publicly listed firms in various industries that have adopted cloud computing technology. The data collected includes financial and non-financial data such as revenue, profitability, market share, and adoption of cloud computing technology. The study used regression analysis to estimate the influence of cloud computing on business performance, and the results indicated that the adoption of cloud computing has a constructive effect on firm performance. Firms that have adopted cloud computing technology show higher levels of profitability, increased revenue, and market share. These results suggested that cloud computing is a significant contributor to the overall performance of listed firms. Furthermore, the study also found that the influence of cloud computing on firm performance is moderated by the firm's size and level of IT infrastructure. Larger firms tend to benefit more from cloud computing due to the economies of scale, while firms with high levels of IT infrastructure tend to have a lower impact on cloud computing adoption.

Another study by JK & MZ (2021) highlighted that Information and Communication Technology (ICT) had revolutionized the real estate business, particularly in real estate management and appraisal practice. ICT

has made real estate management more efficient, cost-effective, and faster and has also enabled the real estate industry to alter to the shifting requirements of the market by providing real-time data and analysis. One of the possibilities of ICT in real estate management is the ability to manage properties remotely; with the use of property management software and mobile applications, property managers can manage properties from any location. Real estate firms track rent payments, schedule maintenance, and communicate with tenants through online platforms, and this reduces the need for physical presence, which saves time and costs. ICT also offers potential in real estate valuation practice, and with the use of data analytics and machine learning algorithms, real estate valuers can analyze real estate market trends, identify patterns, and make more accurate valuations. The use of online databases, such as real estate portals, also enables valuers to access data on comparable properties, which can be used to determine fair market value. Moreover, ICT has potential in marketing and advertising real estate properties. With the use of social media platforms and digital advertising tools, real estate agents can reach a broader audience, showcase their properties, and generate leads. Digital marketing tools also enable real estate agents to personalize their marketing messages, target specific customer segments, and track customer engagement.

Theoretical Framework

The theoretical framework for this research work is based on a combination of several key concepts and theories related to cloud services, work performance, and IT capability. Cloud services refer to the use of cloud-based technologies such as SaaS, PaaS, and IaaS to store and manage data and applications on the internet (Bello et al., 2020). Work performance indicates to the degree to which an individual or organization successfully meets or exceeds established goals and expectations for productivity, quality, efficiency, and effectiveness in performing job tasks. IT capability refers to an organization's ability to effectively use and leverage technology to achieve business objectives and strategic goals (Attaran, 2017).

The Resource-Based View (RBV) theory indicates that a company's distinctive resources and competencies, including IT capabilities, can be a cause of competitive advantage and can lead to superior performance outcomes (Davis & DeWitt, 2021). Social Exchange Theory suggests that individuals engage in social exchanges with others, where they receive benefits or rewards in exchange for their contributions, such as the use of cloud services in the workplace (Ahmad et al., 2023). Task-Technology Fit Theory suggests that the effectiveness of technology in the workplace depends on how well it supports and aligns with the tasks and goals of the organization and its employees. By combining these concepts and theories, the theoretical framework for this research work aims to provide a thorough interpretation of how the use of cloud services impacts work performance in the real estate sector in Riyadh, Saudi Arabia. This framework will serve as a guide for data collection, analysis, and interpretation, helping to ensure that the research outcomes are grounded in established theories and concepts in the field (Spies et al., 2020).

Research Methodology

Data Collection Approach

This research work will be based on a quantitative approach and will follow the descriptive research design. This research will employ primary data analysis, and the data collection method will be an online survey. A self-constructed questionnaire will be used to collect data from the target population, following an broad review of the relevant literature. To collect the data, a Google form will be used, and the participants will be required to provide informed consent before participating. Only participants who willingly consent to participate will be considered for the study. An online link will be generated and shared with the research participants to access the questionnaire.

Target Population (Sampling Technique and Sample Size)

This research will focus on all the people employed in the real estate sector in the Kingdom of Saudi Arabia as the target population. Random sampling will be used in this study, and 250 people will be targeted working in real estate's IT departments; a descriptive research design will be used in combination with a quantitative research approach. The use of random sampling will ensure that the outcomes are unbiased and transparent.

Data Analysis

The collected data will be examined using statistical software such as SPSS and MS Excel. SPSS, in the form of statistical packages, will be used for data analysis, employing multiple techniques. MS Excel will be utilized for data coding and cleaning to transform the data from qualitative to quantitative form. Data coding will convert opinion-based data into a more comprehensible numerical form. Data cleaning will remove irrelevant data and outliers from the collected dataset. The internal reliability of the data will be measured using Cronbach's alpha, which measures the variables' direction towards the latent variable. Multivariate analysis techniques will be employed to reduce the data's volume and size. Summary statistics will be used to transform the data, while correlation and regression analysis will be conducted to assess the relationship and impact between independent and dependent variables.

Research Structure

- 1. Introduction:** This chapter offers an outline of the study, including the background of the research, the problem statement, objectives of the study, research questions, significance of the study, scope and limitations of the research, and definition of terms. This chapter also serves as an introduction to the topic and aims to provide the reader with an understanding of the research.

2. **Literature Review:** This chapter reviews the existing literature on cloud computing services, the real estate sector in Riyadh, and the impact of cloud services on work performance in real estate. It also discusses the barriers to the adoption of cloud services in real estate and the success factors for cloud services adoption in real estate. This chapter is crucial for understanding the existing research on the topic and establishing the research gap.
3. **Research Methodology:** This chapter explains the research design and approach, sampling technique, data collection methods, and data analysis techniques. This chapter discusses the rationale behind the chosen methods and explains how the data will be collected, analyzed, and interpreted. It also outlines the ethical considerations taken during the research process.
4. **Data Analysis and Results:** This chapter shows the results of the data collected and analyzed using the methods discussed in chapter 3. This chapter will include data cleaning and coding, descriptive and inferential statistics, hypothesis testing, and results interpretation. The data will be presented using tables, charts, and graphs to provide a clear understanding of the results.
5. **Discussion and Conclusion:** This chapter summarizes the findings from chapter 4 and discusses the research questions. It also includes the implications for cloud services adoption in real estate, limitations, and suggestions for future research. This chapter aims to provide a comprehensive understanding of the research and its implications. This chapter offers a review of the study, the assumption and suggestions, and the implications for practice. It summarizes the key findings and recommendations from the study and outlines how the research can contribute to the real estate sector in Riyadh.
6. **References:** This section includes all the sources used in the literature review and cited throughout the research.

7. **Appendixes:** This section includes additional information, such as the survey questionnaire, interview transcripts, and any other relevant materials used during the research process.

Research Limitation

This research study is limited to the real estate sector in Riyadh, Saudi Arabia; therefore, the results may not be generalizable to other regions or sectors. This study may be limited by the timeframe available for data collection and analysis, which could impact the depth and breadth of the analysis. This study will rely on self-reported data collected through surveys, which could be subject to social desirability bias and other response biases.

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