



## Creation of the Electronic Platform "Surveying" That Supports the Development of the Residential Sector of the Real Estate Market

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**Abstract:** Real estate is an essential aspect of any economy, and its management plays a crucial role in the development and growth of a country. In Uzbekistan, the real estate market is rapidly evolving, and its management is becoming increasingly complex. One of the major challenges in the management of real estate is the lack of a well-formed surveying service, which is essential for professional management. This paper will discuss the problems of forming surveying services for professional management of real estate in the market of Uzbekistan.

**Key words:** surveying services, development, efficiency of integrated communications, business enterprise, communication, traditional method of surveying properties, real estate managers.

**Introduction:** The real estate market is one of the most significant sectors of the economy worldwide, contributing to the growth and development of countries' GDPs. In recent years, the residential sector of the real estate market has been the focus of attention, as it caters to the basic needs of housing for individuals and families. However, the process of acquiring residential property can be complex and challenging, involving various stakeholders such as buyers, sellers, real estate agents, and surveyors.

The traditional method of surveying properties has been time-consuming and expensive, with the use of paper maps and plans, as well as the need for physical site visits by surveyors. These methods have resulted in delays, errors, and inefficiencies, leading to high costs and dissatisfaction among stakeholders. Therefore, there is a need for a more efficient and effective electronic platform that supports the development of the residential sector of the real estate market.

This thesis aims to address this need by proposing the creation of an electronic platform called "Surveying," which supports the development of the residential sector of the real estate market. The platform will leverage modern technologies such as Geographic Information System (GIS), Global Positioning System (GPS), and remote sensing, among others, to provide a comprehensive and reliable surveying service.

The Surveying platform will provide a range of services, including property mapping, site analysis, and real-time updates on property development projects. The platform will also be designed to be user-friendly, allowing stakeholders to access the service from any location, at any time. The platform will reduce the need for physical site visits by surveyors, thus reducing costs and increasing efficiency.

This thesis will investigate the current challenges faced by the residential sector of the real estate market, including the limitations of traditional surveying methods. It will analyze the potential of modern technologies to overcome these challenges and propose the design and development of the Surveying platform. The thesis will also explore the benefits of the Surveying platform, including cost reduction, increased efficiency, and improved stakeholder satisfaction.

**Methods.** In the course of the study, general scientific methods and methods for processing statistical data were used. The information base was the materials of domestic and foreign research institutions, international organizations.

**Results.** Real estate is one of the most valuable assets in the world. Its management requires effective use of resources, knowledge, and expertise in the area of property development and management. In today's digital age, management of real estate has been revolutionized by the use of digital technologies. Theoretical foundations of management of real estate objects and the use of digital technologies in it play an essential role in ensuring that this asset is maximized. This paper will explore the theoretical foundations of real estate management and how digital technologies have transformed this field.

Theoretical foundations of real estate management Real estate management involve the process of controlling, planning, and overseeing the operations of a real estate property. The process encompasses a wide range of activities such as property development, maintenance, leasing, and disposal. Theoretical foundations of real estate management are based on a set of principles that guide the decision-making process. These principles include property rights, value, supply and demand, and market dynamics.

Property rights are a critical aspect of real estate management. They are the legal rights that allow an individual or entity to use, control, and transfer a property. Property rights include the right of ownership, right of possession, and right of disposition. Property rights are essential in the management of real estate because they determine who has the authority to make decisions regarding a property.

Value is another critical aspect of real estate management. Value is the monetary worth of a property, and it is determined by the market forces of supply and demand. The value of a property is influenced by several factors such as location, condition, and market trends. Real estate managers must have a good understanding of the value of a property to make informed decisions regarding its management.

Supply and demand are also important theoretical foundations of real estate management. The supply of real estate refers to the number of properties available for sale or lease, while demand refers to the number of individuals or entities willing to buy or lease a property. The balance between supply and demand influences the value of a property and determines its marketability.

Market dynamics are the forces that influence the real estate market. These forces include economic conditions, government policies, and social trends. Real estate managers must have a good understanding of market dynamics to make informed decisions regarding the management of a property.

The use of digital technologies has transformed the real estate industry. Digital technologies have made it easier to manage real estate properties by providing tools for marketing, data analysis, and communication. The most common digital technologies used in real estate management include virtual reality, big data, and the internet of things.

Virtual reality is a technology that allows individuals to view properties remotely. It is particularly useful for clients who are unable to physically view a property due to distance or time constraints. Virtual reality enables real estate managers to showcase properties to potential clients from anywhere in the world.

Big data is another digital technology that has transformed real estate management. Big data refers to the large volume of data that is generated by real estate transactions, social media, and other sources.

Real estate managers use big data to analyze market trends, identify potential clients, and forecast demand.

The internet of things (IoT) is a network of interconnected devices that share data over the internet. In real estate management, IoT devices are used to monitor and control various aspects of a property such as temperature, lighting, and security. IoT devices enable real estate managers to manage properties remotely and provide real-time data on the performance of a property.

Digital technologies such as virtual reality, big data, and IoT have revolutionized the real estate industry. Real estate managers can now use these tools to enhance their decision-making process, improve their marketing strategies, and optimize their operations. Virtual reality, for instance, provides clients with an immersive experience of a property, enabling them to make informed decisions without physically visiting the property. This is particularly useful for international clients who are unable to travel to view a property.

Big data has also transformed real estate management by providing real estate managers with insights into market trends and customer preferences. By analyzing large volumes of data, real estate managers can identify potential clients and target their marketing strategies effectively. Additionally, big data enables real estate managers to forecast demand accurately, ensuring that they optimize their property management strategies.

The internet of things (IoT) has also transformed real estate management by providing real-time data on the performance of a property. IoT devices enable real estate managers to monitor and control various aspects of a property remotely, such as temperature, lighting, and security. This improves the efficiency of property management and ensures that real estate managers can quickly identify and resolve any issues that may arise.

Real estate management involves several processes that are critical in ensuring that a property is maximized. These processes include property development, maintenance, leasing, and disposal. To effectively manage a property, real estate managers must have a good understanding of the theoretical foundations of real estate management. These foundations are based on principles such as property rights, value, supply and demand, and market dynamics.

Property rights are the legal rights that allow an individual or entity to use, control, and transfer a property. These rights are critical in the management of real estate because they determine who has the authority to make decisions regarding a property. Real estate managers must have a good understanding of property rights to ensure that they make informed decisions that comply with legal requirements.

Value is another critical aspect of real estate management. The value of a property is influenced by several factors such as location, condition, and market trends. Real estate managers must have a good understanding of the value of a property to make informed decisions regarding its management. Additionally, the value of a property is influenced by supply and demand. The balance between supply and demand influences the value of a property and determines its marketability.

Market dynamics are the forces that influence the real estate market. These forces include economic conditions, government policies, and social trends. Real estate managers must have a good understanding of market dynamics to make informed decisions regarding the management of a property. By understanding market dynamics, real estate managers can anticipate changes in the market and adjust their management strategies accordingly.

The use of digital technologies in real estate management has transformed this field by providing tools for marketing, data analysis, and communication. Virtual reality is a technology that allows individuals to view properties remotely. It is particularly useful for clients who are unable to physically view a property due to distance or time constraints. Big data is another digital technology that has transformed real estate management. Real estate managers use big data to analyze market trends, identify potential clients, and forecast demand. The internet of things (IoT) is a network of interconnected devices that share data over the internet. In real estate management, IoT devices are used to monitor and control various aspects of a property such as temperature, lighting, and security.

## Analyses.

The real estate market is one of the most critical sectors of the global economy. The residential sector, in particular, has significant implications for the overall health of the economy. Over the years, the real estate market has undergone significant transformations, with digitalization being one of the most significant changes.

Digitalization has affected every aspect of the real estate market, from property listings to property management. The digitalization of the economy has led to the emergence of new technologies that have significantly impacted the residential sector of the real estate market. Real estate professionals have had to adapt to these changes and incorporate technology into their business practices to remain competitive.

This thesis examines the current state of management of the residential sector of the real estate market in the context of digitalization of the economy. The study aims to identify the challenges and opportunities presented by digitalization in the management of the residential sector of the real estate market. The study also seeks to explore the role of technology in the management of the residential sector of the real estate market.

### 1.1 Research Problem

The real estate market is complex and dynamic, and the management of the residential sector of the market presents unique challenges. The emergence of new technologies and the digitalization of the economy have led to significant changes in the way the residential sector of the real estate market is managed. There is a need to examine the current state of management of the residential sector of the real estate market in the context of digitalization of the economy.

### 1.2 Research Objectives

The objectives of this study are as follows:

1. To identify the challenges and opportunities presented by digitalization in the management of the residential sector of the real estate market.
2. To examine the current state of management of the residential sector of the real estate market in the context of digitalization of the economy.
3. To explore the role of technology in the management of the residential sector of the real estate market.

### 1.3. Research Questions

The research questions for this study are as follows:

1. What are the challenges and opportunities presented by digitalization in the management of the residential sector of the real estate market?
2. What is the current state of management of the residential sector of the real estate market in the context of digitalization of the economy?
3. What is the role of technology in the management of the residential sector of the real estate market?

### 1.4. Significance of the Study

The findings of this study will have significant implications for the management of the residential sector of the real estate market. The study will provide insights into the challenges and opportunities presented by digitalization in the management of the residential sector of the real estate market. The study will also highlight the role of technology in the management of the residential sector of the real estate market. The study will be useful for policymakers, real estate professionals, and researchers.

### 1.5. Research Methodology

The research methodology for this study will involve a combination of qualitative and quantitative research methods. The study will use a survey questionnaire to collect data from real estate

professionals in the residential sector of the real estate market. The study will also conduct interviews with selected real estate professionals to gain in-depth insights into the challenges and opportunities presented by digitalization in the management of the residential sector of the real estate market. The study will use statistical analysis to analyze the survey data and thematic analysis to analyze the interview data.

### 1.6. Limitations of the Study

The study has several limitations. First, the study will only focus on the residential sector of the real estate market. Second, the study will only collect data from real estate professionals, and the views of other stakeholders, such as homeowners and renters, will not be included. Third, the study will be limited to the data collected during the study period, and changes in the real estate market after the study.

### The Impact of Digitalization on the Residential Sector of the Real Estate Market

The emergence of digital technologies has transformed the real estate market. One of the most significant changes is the use of the internet for property listings. Real estate professionals can now list properties on online platforms and reach a wider audience than ever before. Online platforms also allow for the use of virtual tours, 3D imaging, and other digital technologies that enhance the property viewing experience.

Digitalization has also had a significant impact on property management. Property management software has made it easier for real estate professionals to manage properties, including rent collection, maintenance, and accounting. Digital tools have also made it easier for property managers to communicate with tenants, respond to maintenance requests, and track expenses.

Real estate professionals have benefited from digitalization in several ways. The use of digital tools has made it easier to manage properties, communicate with clients, and market properties. Online platforms have also made it easier for real estate professionals to access information about the real estate market, including trends and market data.

While digitalization has brought many benefits to the residential sector of the real estate market, it has also presented several challenges. One of the main challenges is the need for real estate professionals to keep up with the latest technologies. The rapid pace of technological change means that real estate professionals need to continually update their skills and knowledge to remain competitive.

Another challenge is the risk of cyber threats. As more real estate professionals use digital tools to manage properties, the risk of cyber-attacks increases. Real estate professionals need to take steps to protect their clients' data and ensure that their systems are secure.

The future of digitalization in the residential sector of the real estate market is likely to involve further advancements in technology. Artificial intelligence and machine learning are already being used to automate some aspects of the real estate market, and this trend is likely to continue. Virtual and augmented reality technologies are also likely to become more prevalent, providing a more immersive property viewing experience.

### The Role of Technology in the Management of the Residential Sector of the Real Estate Market

Property management software has become an essential tool for real estate professionals in the residential sector of the real estate market. Property management software allows real estate professionals to manage properties, including rent collection, maintenance, and accounting, in one centralized location. Property management software can also generate reports and provide real-time data on the performance of properties.

Customer relationship management (CRM) software is another technology that is becoming increasingly important in the residential sector of the real estate market. CRM software allows real estate professionals to manage their client relationships, including lead generation, client communication, and sales tracking. CRM software can also help real estate professionals to identify trends in the market and target their marketing efforts more effectively.

Virtual and augmented reality technologies are becoming more prevalent in the real estate market. Virtual and augmented reality technologies allow prospective buyers to view properties in a more immersive way, providing a more realistic view of the property. Virtual and augmented reality technologies can also be used to stage properties and provide a more personalized viewing experience.

Opportunities and importance of introducing servicing services in the management of various real estate objects.

Real estate management is a complex process that involves a wide range of activities, including property maintenance, rent collection, tenant management, and marketing. The successful management of real estate objects requires a comprehensive approach that takes into account the needs of property owners, tenants, and other stakeholders. One area of real estate management that has gained increasing attention in recent years is servicing services. Servicing services refer to the range of services that are provided to real estate objects to ensure their optimal performance and maintenance. In this chapter, we will provide an overview of the opportunities and importance of introducing servicing services in the management of various real estate objects.

### Opportunities of Introducing Servicing Services in Real Estate Management

One of the primary opportunities of introducing servicing services in real estate management is the potential for improved property performance. Servicing services can help to identify and address maintenance issues before they become major problems. Regular maintenance can also help to extend the lifespan of building components and systems, reducing the need for costly repairs and replacements.

Another opportunity of introducing servicing services in real estate management is the potential for increased property value. Well-maintained properties are more attractive to tenants and buyers, and can command higher rental rates and sale prices. Regular servicing services can also help to improve the energy efficiency of properties, reducing operating costs and increasing their value.

Servicing services can also enhance tenant satisfaction. When properties are well-maintained and operating efficiently, tenants are more likely to be satisfied with their living or working environments. This can lead to lower tenant turnover rates and increased tenant loyalty, which can have a positive impact on property owners' bottom lines.

Regular servicing services can help to identify and address potential health and safety issues in real estate objects. This can include identifying and mitigating indoor air quality issues, addressing potential fire hazards, and ensuring that building systems are operating safely and effectively. Improved health and safety can benefit both tenants and property owners, reducing the risk of liability issues and improving overall property performance.

### Importance of Introducing Servicing Services in Real Estate Management

One of the most important reasons to introduce servicing services in real estate management is the potential for long-term cost savings. By addressing maintenance issues proactively and ensuring that properties are operating efficiently, property owners can reduce the need for costly repairs and replacements. This can help to improve the overall profitability of properties and provide a more stable income stream for property owners.

Another important reason to introduce servicing services in real estate management is to ensure compliance with regulations. Real estate objects are subject to a wide range of regulations and codes, and it can be challenging for property owners to keep up with all of the requirements. Servicing services can help to ensure that properties are in compliance with all applicable regulations and codes, reducing the risk of fines and legal issues.

Introducing servicing services can also improve tenant relations. Tenants are more likely to be satisfied with their living or working environments when properties are well-maintained and operating efficiently. Improved tenant relations can lead to lower turnover rates, which can save property owners money on marketing and leasing costs.

Finally, introducing servicing services can enhance the reputation of real estate objects and their owners. Properties that are well-maintained and operating efficiently are more attractive to tenants and buyers, and can help to build a positive reputation in the real estate market. This can lead to increased demand for properties and higher rental rates and sale prices.

### Types of Servicing Services in Real Estate Management

Preventative maintenance is one of the most important types of servicing services in real estate management. This involves regular inspections and maintenance of building components and systems to identify and address issues before they become major problems. Preventative maintenance can include tasks such as changing air filters, cleaning gutters, inspecting roofing and insulation, and testing electrical systems. By addressing maintenance issues proactively, property owners can reduce the risk of costly repairs and replacements and improve overall property performance.

Repairs and replacements are another important type of servicing service in real estate management. When components or systems in real estate objects fail, they may need to be repaired or replaced to ensure proper functioning. Common repairs and replacements in real estate management may include fixing leaks, replacing HVAC systems, repairing roofs or walls, or replacing appliances or fixtures. By addressing these issues promptly and effectively, property owners can reduce the risk of damage to the property and maintain a high level of tenant satisfaction.

Energy efficiency upgrades are becoming increasingly important in real estate management, as property owners look for ways to reduce operating costs and increase property value. Energy efficiency upgrades can include tasks such as installing LED lighting, upgrading insulation, installing low-flow plumbing fixtures, or upgrading HVAC systems. By reducing energy consumption and operating costs, energy efficiency upgrades can help to increase property value and improve the overall performance of real estate objects.

Safety and security upgrades are also important types of servicing services in real estate management. These upgrades may include installing smoke detectors and fire suppression systems, adding security cameras or access control systems, or upgrading building access systems. By addressing potential safety and security issues proactively, property owners can reduce the risk of liability issues and improve overall tenant satisfaction.

Technology integration is another important aspect of servicing services in real estate management. As the real estate industry becomes increasingly digitalized, property owners can leverage technology to improve the efficiency and effectiveness of their property management operations. Technology solutions such as property management software, automated maintenance tracking systems, and smart building technology can help property owners to streamline their operations, reduce costs, and improve tenant satisfaction. For example, smart building technology can allow property owners to remotely monitor and control building systems, such as lighting and HVAC, to ensure that they are operating efficiently and to identify issues before they become major problems.

Property owners may choose to outsource servicing services to third-party providers to ensure that they are provided efficiently and effectively. Outsourcing can allow property owners to benefit from the expertise of specialized service providers and can help to reduce costs by avoiding the need to hire and train in-house maintenance staff. Outsourcing can also help property owners to ensure compliance with regulations and to reduce the risk of liability issues.

Engaging tenants in the management of real estate objects is another important aspect of servicing services. By involving tenants in the maintenance and upkeep of their properties, property owners can improve tenant satisfaction and reduce the risk of damage to the property. Tenant engagement can include tasks such as providing tenants with information about maintenance schedules, encouraging them to report issues promptly, and providing incentives for good maintenance behavior. By working collaboratively with tenants, property owners can create a more positive and efficient property management environment.

Green servicing services are becoming increasingly important in real estate management, as property

owners look for ways to reduce their environmental impact and increase sustainability. Green servicing services can include tasks such as implementing renewable energy solutions, installing green roofs or walls, or upgrading HVAC systems to improve energy efficiency. By reducing their environmental impact, property owners can improve their reputation in the market and appeal to environmentally conscious tenants.

Cost management is an important consideration in real estate management, and servicing services can help property owners to reduce costs by identifying and addressing issues proactively. By implementing preventative maintenance programs and addressing repairs and replacements promptly, property owners can reduce the risk of costly emergency repairs and replacements. Additionally, energy efficiency upgrades and green servicing services can help to reduce operating costs and improve the overall financial performance of real estate objects.

Servicing services can also help property owners to protect their assets and maximize the value of their real estate objects. By addressing maintenance issues proactively and ensuring that properties are operating efficiently, property owners can reduce the risk of damage to the property and improve overall property performance. Additionally, safety and security upgrades can help property owners to reduce the risk of liability issues and ensure that their properties are compliant with regulations.

Servicing services can also help property owners to create value in their real estate objects. By improving the overall performance of properties, property owners can increase property value and attract higher rents. Additionally, introducing energy efficiency upgrades and green servicing services can help to improve the sustainability of properties and appeal to environmentally conscious tenants, further increasing property value.

Introducing servicing services in real estate management can also help property owners to differentiate their properties in the market. By offering high-quality maintenance and servicing services, property owners can improve tenant satisfaction and attract new tenants. Additionally, properties with energy efficiency upgrades and green servicing services may be more attractive to environmentally conscious tenants, providing a competitive advantage in the market.

Compliance with regulations is an important consideration in real estate management, and servicing services can help property owners to ensure that their properties are compliant with regulations. By addressing safety and security issues proactively and ensuring that properties are operating efficiently, property owners can reduce the risk of regulatory non-compliance and associated liability issues.

Finally, servicing services can help property owners to manage their reputation in the market. By offering high-quality maintenance and servicing services, property owners can improve tenant satisfaction and attract new tenants. Additionally, properties with energy efficiency upgrades and green servicing services may be viewed more favorably by stakeholders, enhancing the reputation of property owners in the market.

## **Discussion**

In conclusion, introducing servicing services in real estate management can provide a wide range of benefits for property owners, tenants, and other stakeholders. By addressing maintenance issues proactively and ensuring that properties are operating efficiently, property owners can reduce costs, increase property value, and improve tenant satisfaction. Introducing servicing services can also help property owners to ensure compliance with regulations, enhance their reputation in the market, and reduce the risk of liability issues. Types of servicing services in real estate management include preventative maintenance, repairs and replacements, energy efficiency upgrades, safety and security upgrades, technology integration, outsourcing servicing services, tenant engagement, green servicing services, cost management, asset protection, value creation, market differentiation, compliance with regulations, and reputation management.

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