

# Social Platform Commercial Advertising

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**Abstract**—In today's digital environment, users frequently rely on online platforms to discover local businesses such as restaurants, service providers, and retail stores. However, many existing platforms contain outdated listings, misleading advertisements, or unreliable information. Additionally, small businesses often struggle to establish an affordable online presence due to high listing costs and complex platform requirements. These issues create a gap between users seeking trustworthy business information and businesses trying to reach potential customers.

The Social Platform Commercial Advertising is designed to address these challenges by providing a simple, reliable, and user-friendly web application that focuses on verified business discovery. The platform enables business owners to create and manage their business profiles while allowing administrators to verify listings before they become publicly visible. Users can browse or search businesses by category or name and access detailed profiles containing business descriptions, images, contact information, and location details. By prioritizing simplicity, verification, and usability, the system improves trust and accessibility for both customers and business owners. The project demonstrates the practical implementation of modern web technologies such as React, Supabase, and PostgreSQL in building a scalable business discovery platform.

**Index Terms**—Business discovery, Web application, Local businesses, Supabase, React, Business directory, Digital platforms.

## I. INTRODUCTION

With the rapid growth of the internet and digital technologies, online platforms have become the primary method for discovering products and services. People now depend on online search and digital directories to find nearby businesses, compare services, and make informed decisions.

Despite the availability of several business listing platforms, many users still face challenges in finding

reliable and updated information. Some platforms display excessive advertisements that distract users from actual content. Others contain outdated or inaccurate listings that reduce trust in the information provided.

Small businesses also encounter significant barriers when attempting to establish an online presence. Many platforms charge high fees for listing services or require complicated registration processes. As a result, many small businesses remain underrepresented in digital marketplaces.

The Social Platform Commercial Advertising aims to bridge this gap by providing a simplified and trustworthy platform dedicated to business discovery. The system ensures that businesses are verified before appearing in search results, improving the reliability of the information provided. By focusing on simplicity and authenticity, the platform enhances the experience for both users and business owners.

## II. LITERATURE REVIEW

Several studies and systems have explored the concept of online business directories and discovery platforms. Popular platforms such as Google Maps, Yelp, and other business listing services allow users to find local businesses and view reviews. However, these systems often focus on large-scale commercial operations and include features such as advertisements, sponsored listings, and complex ranking algorithms.

Research on digital business directories suggests that simplicity and trust are critical factors for user adoption. Users prefer platforms that provide accurate information without unnecessary clutter. Verification of business listings is also an important factor in ensuring reliability.

Existing research also highlights the importance of modern web technologies in developing scalable web applications. Technologies such as React enable

developers to build responsive user interfaces, while backend services like Supabase simplify database management, authentication, and storage.

The Social Platform Commercial Advertising incorporates these technological advancements to create a simplified yet powerful platform for business discovery.

### III. PROBLEM STATEMENT

Many users face difficulty in finding reliable and updated information about local businesses. Existing platforms may include outdated listings, excessive advertisements, and complicated interfaces, which make the discovery process inefficient.

Small businesses also struggle to gain online visibility due to expensive listing services and complex registration processes.

Therefore, there is a need for a simple, reliable, and verified business discovery platform that allows users to find businesses easily while providing small businesses with an affordable digital presence.

### IV. EXISTING SYSTEM

Several business discovery platforms currently exist. These systems allow users to search for businesses and access contact information and services offered. However, many of these platforms suffer from multiple limitations.

#### 1) *Challenges of Existing Systems*

- Presence of excessive advertisements that reduce usability
- Outdated business listings that provide incorrect information
- High subscription or listing costs for small businesses
- Lack of verification mechanisms for business authenticity
- Complex user interfaces that make navigation difficult

Due to these limitations, users may struggle to find trustworthy information, and small businesses may fail to reach their target audience effectively.

### V. PROPOSED SYSTEM

The Social Platform Commercial Advertising is a web-based application designed to simplify local

business discovery. The system provides a centralized platform where business owners can register and create detailed profiles for their businesses.

Each business listing includes important information such as business name, category, description, contact details, images, and location information. To maintain reliability, administrators review and verify each business listing before it becomes publicly visible.

Users can browse businesses by category or search for specific businesses by name. Once a business is selected, users can view detailed information including images and contact details.

The proposed system focuses on delivering a clean and distraction-free user interface, ensuring that users can easily discover businesses without unnecessary features or advertisements.

### VI. METHODOLOGY

The development of the Social Platform Commercial Advertising follows a structured methodology consisting of several phases.

#### 1. *Requirement Analysis*

In this phase, the system requirements are identified by analyzing the needs of users and business owners. The main features required include business profile creation, search functionality, admin verification, and image uploads.

#### 2. *System Design*

The architecture of the system is designed to ensure efficient interaction between the frontend interface and backend database services.

#### 3. *Implementation*

The system is implemented using modern web development technologies. The frontend interface is developed using React and TypeScript, while Supabase provides backend services including authentication and database management.

#### 4. *Testing*

Various tests are conducted to ensure that all features function correctly. These include functional testing, user interface testing, and database testing.

#### 5. *Deployment*

The application is deployed in a web environment where users can access it through a browser.

## VII. SYSTEM ARCHITECTURE

The system follows a client-server architecture consisting of three main layers.

### 1) A. Client Layer

The client layer represents the user interface of the application. It is built using React and TypeScript, providing a responsive and interactive environment where users can search businesses, view profiles, and explore categories.

### 2) B. Application Layer

This layer manages the business logic of the system, including authentication, business profile creation, and search functionality.

### 3) C. Database Layer

The database layer stores all application data including user accounts, business profiles, images, and verification status. Supabase PostgreSQL is used as the database management system, and Supabase Storage is used for storing images.

Row Level Security (RLS) ensures that users can only access data according to their permissions.

## VIII. SYSTEM FEATURES

### 1. Business Registration

Business owners can create accounts and submit their business details for listing.

### 2. Business Profile Management

Owners can update or edit their business information whenever necessary.

### 3. Admin Verification

Administrators review business submissions and verify them before publishing.

### 4. Business Search

Users can search for businesses using keywords or browse by category.

### 5. Image Upload

Business profiles support image uploads to provide better visibility and presentation.

### 6. Clean Interface

The platform provides a simple and distraction-free interface focused on business discovery.

## IX. ADVANTAGES

- Verified and trustworthy business listings
- Simple and intuitive user interface
- Affordable digital presence for small businesses
- Centralized business information in one platform
- Improved accessibility for users searching for services
- Efficient management and verification of business data

## X. APPLICATIONS

The system can be applied in several real-world scenarios including:

- Local business discovery platforms
- City-based business directories
- Startup business promotion platforms
- Community service discovery platforms
- Educational and research projects related to web technologies

## XI. EXPECTED OUTCOME

The expected outcome of this project is a fully functional web application that enables users to discover verified businesses easily. The platform improves trust by ensuring that all listings are verified before publication.

Small businesses benefit from increased visibility, while users gain access to reliable and organized business information in one place.

## XII. CONCLUSION

The Social Platform Commercial Advertising provides a practical solution for discovering local businesses in a simple and reliable manner. By focusing on verified business listings and easy search functionality, the system improves user trust and accessibility.

The project demonstrates the effective use of modern web technologies in developing a scalable and user-friendly web application. With future enhancements such as reviews, booking systems, and payment integration, the platform has the potential to evolve into a comprehensive business discovery ecosystem.

### XIII. FUTURE SCOPE

The current system focuses only on business discovery. However, several additional features can be implemented in the future.

- User review and rating system
- Business–customer messaging features
- Online booking and appointment scheduling
- Payment gateway integration
- AI-based recommendation systems
- multi-city and multi-language support

These enhancements will improve the scalability and usability of the platform.

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