# The Impact of Online Platforms in Home Service Provision

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**Abstract: Enhancing Home Services with E-Commerce**

In today's fast-paced world, individuals often engage with tight timetables and strenuous activities often lead to neglecting family life. Unexpected issues can further distract individuals, forcing them to prioritize work over personal matters. Balancing professional and family responsibilities is crucial.

Imagine a home where pipes never leak, furniture repairs are hassle-free, and maintenance issues are non-existent. We've all fantasized about such a life where services are readily available at our doorstep without the complexities of bargaining for labour. Enter E-Commerce, a pivotal force in modern life, offering convenience to people's daily routines.

To address this need, we propose designing and developing a comprehensive setup that brings a range of services right at your doorstep with one click. Our network provides a spectrum of services, including plumbers, relocation, repair work, cleaning, electrical, painting, and laundry assistance. To enhance user experience, we've created a mobile-friendly environment for easy access to our services.

Booking a service is straightforward: users upload an image specifying their requirements, and our system handles the rest. Additionally, we provide confirmation emails for selected services. Whether you're at home or on the go, our versatile system allows service bookings from anywhere to everywhere. It's time to simplify life's everyday challenges!

## 1. INTRODUCTION

When faced with minor yet critical domestic duties, the challenge emerges when skilled service providers are unreachable or reliable options seem out of reach. Consistently impeccable service delivered promptly becomes a rarity. But fear not! Our online household services system offers the most prudent and hassle-free way to tackle domestic chores.

Our mission? To offer perfect answers for each domestic issue with proficiency, simplicity and a fine sensitivity. Here's how our system works:

1. **Effortless Booking** With a single click, you can book highly skilled in-house professionals. No more waiting or uncertainty—our system ensures timely service delivery.
2. **Transparent Pricing** Say goodbye to haggling over rates. Our marketplace standardizes prices, ensuring fairness for both customers and service providers. You pay for quality, and quality is what you receive.
3. **Comprehensive Services** Spanning from painting and vermin management to house sanitation, waterworks, circuitry tasks and woodcraft, we encompass everything. Our goal? To create a happy and healthy home atmosphere that satisfies consumers like you.

Remember, a well-maintained home contributes to your overall well-being. Let us handle the details while you focus on what truly matters—your family and peace of mind.

## 2. OBJECTIVES

The primary objective of our online household services system is to bring home services directly to your abode with one click. In this paper , we investigate the central subject of digital home services, examine the extensive array of services provided, and consider the complexities of placing orders and the process of service provision.

Our system caters to authorized users—service seekers, service providers, and administrators—via an ingenious web-based platform or a mobile application. Here are our key goals:

1. **Authentication and Authorization** We provide a secure login module where users can register with appropriate credentials. Whether you're seeking services or providing them, our system ensures authorized access.
2. **Web and Mobile Integration** Our vision extends beyond the web. We're developing both a web-based system and an identical mobile application for seamless service access. Convenience is our priority.
3. **User-Friendly Interface** An interactive User Interface (UI) ensures ease of use. Whether you're at home or on the move, seeking services becomes effortless.
4. **Secure Payment Gateway** We've implemented a robust online payment gateway for service seekers. Your transactions are safe and hassle-free.
5. **Service Confirmation** Users receive acknowledgment for the services they've opted for. No more uncertainty—our system keeps you informed.
6. **Quality Assurance** Our commitment to excellence extends beyond convenience. We rigorously vet our service providers, ensuring that only skilled professionals with a track record of reliability join our network. Your satisfaction is our priority.

## 3.SYSTEM REQUIREMENTS

### *3.1 Software Requirements*

Table 1: Software Requirements

| | | |
|---|---|---|
| SERVER SIDE | Operating System | Linuxx86_64 |
| | Application software | PhpMyAdmin, cPanel 64.0 (build 19) |
| SERVER SIDE | Software tool | WordPress 4.7.2 (HTML, PHP, JavaScript, CSS, XML, Perl 5.10.1) |
| | Database | MySQL 10.0.30-MariaDB |
| | Payment Gateway | Any Payment Gateway viz., Papal, Instatmojo. |
| CLIENT SIDE | Operating System | Any Operating system that supports Browser |
| | Application software | Any JavaScript enabled web Browser |

### *3.2 Hardware Requirements*

Table 2 : Hardware Requirements

| | | |
|---|---|---|
| SERVER SIDE | A cloud-based hosting service from OneSite(Skywalker) is acquired. | |
| CLIENT SIDE | Processor | Any x86 or x64 processor compatible with the necessary software is needed |
| | Disk Space | 25-50 MB (for Web Browser setup) |
| | RAM | 256 MB |

## 4. SYSTEM DESIGN

### *4.1 System Tools*

Primary Instruments utilized within our setup-

#### *4.1.1WordPress*

Utilizing WordPress, which employs SQL for data management, administrators can securely house the details of both consumers and service providers. Consumers have the ability to select necessary services via an engaging interface, crafted with various scripting languages alongside WordPress. WordPress offers a no-cost transactional gateway known as WooCommerce. This WooCommerce gateway module, when integrated with an Inspire Commerce business account, facilitates the acceptance of payments from predominant payment cards encompassing Visa, American Express, Discover, Mastercard, JCB and Diners Club. Inspire Commerce synonymous with top-tier security and dependability. Additionally, the option for mobile transactions adds further value. The principal attributes of WooCommerce include 1) Fraud Prevention, which identifies and mitigates dubious transactions using advanced products and inbuilt fraud prevention mechanisms. 2) Risk Management, ensuring that the WooCommerce gateway adheres to PCI Level 1 standards, thereby guaranteeing secure

storage of card information. 3) Swift Payment Processing, where funds for services rendered are transferred to the business's bank account within two days. 4) Compatibility with all principal credit cards.

#### *4.1.2PHP*

PHP's dynamic capabilities present complex challenges for developers and tools in program analysis. As certain elements like 'eval' are phased out, more subtle flexible characteristics, like changing, are gaining prevalence [11]. Originally the collection of scripts for personal webpages, PHP has evolved into a dominant language for crafting server-side web applications. PHP shares with other scripting languages dynamic features, including the 'eval' function to execute runtime-provided code as strings. It also has special functions, known as 'magic methods,' that manage object field accesses and method uses that are unclear or undefined, and it allows the use of expressions in place of explicit identifiers to name methods, functions, variables, and categories in novel formulations. These functionalities typically simplify programming tasks [12]. Studies on Media Wiki and WordPress reveal how the employment of variable characteristics, 'eval' and 'magic methods 'has shifted across duration [13]. WordPress delineates a trend in the employment of functionalities like Variable manipulation, Function Invocation, Method Utilization, Object Instantiation, and Property Handling.

The principal difficulty in rectifying software setup mistakes lies in identifying the non-compliant configuration settings, a task that becomes more complex in multi-tier architectures. Such architectures are composed of several strata, each obscuring the intricacies of an underlying stratum, and possesses distinct entities and setup protocols [14]. Regarding WP (Figure 1), the foremost widely used content management framework, and a classic multi-tier structure featuring a LAMP stack (Linux, Apache, MySQL, and PHP), it includes the WP PHP framework and numerous WP extensions.

### *.4.2 System Modules*

#### *4.2.1Registration Module*

Patrons desiring to utilize our offerings are encouraged to sign up for a complimentary account on our platform through a straightforward process, by submitting authentic credentials a patron is prompted to validate account establishment. Following their completion of the signup, an acknowledgment email regarding the new account with a validation link is sent to the provided Email address. Subsequently, a patron is at liberty to employ our services post account validation.

#### *4.2.2 Service Module*

Clients wishing to arrange a service may proceed by accessing their profile. Our portal boasts a dynamic user interface that offers a compelling method for reserving a service, prompting clients to furnish specifics about the needed services. Clients may need to upload images of their items if there's uncertainty regarding any service. Upon completion, the request is processed, leading to the payment gateway for transaction completion.

#### *4.2.3Payment Module*

Subsequent steps advance to the subsequent segment where the customer is obligated to submit payment for the chosen offerings. This is facilitated via an independent payment platform ensuring a protected and reliable exchange. After the transaction is finalized, a verification notice detailing the chosen services is sent to the client, and a confirmation is also visibly presented on the site. Upon reservation and verification of the service, our company's professionals will be dispatched to provide the service.

The concept introduced in this document represents a novel innovation that simplifies the client's quest for skilled workers and eliminates the need for negotiation to secure advantageous services. After the completion of the service, we invite our clients to evaluate the service rendered by our experts and to offer any constructive criticism or suggestions for enhancing our service quality.

### 4.3 Use Case diagram for the proposed model

The suggested setup includes three participants: an Administrator, a Service provider, and a Consumer. The Administrator possesses initial permissions to access and alter the website, requiring login for such actions. Following the administrator, the client who wishes to utilize our offerings must proceed with the sign-up and sign-in procedures. If necessary, a client can upload a document that outlines the services. After the request is completed, it can be advanced to the payment procedure and service confirmation. Once the service is rendered, a customer can evaluate the service. In the unfortunate event that the customer is displeased with the service, they can proceed with the return policy process. Finally, a service provider, who is the one delivering the service, must also undergo the registration and login process. They should proceed with the uploaded files and once the service is confirmed, they are notified to deliver the service. After the service is completed, if the customer is not satisfied, based on the customer's review, they may need to provide the service again if necessary.

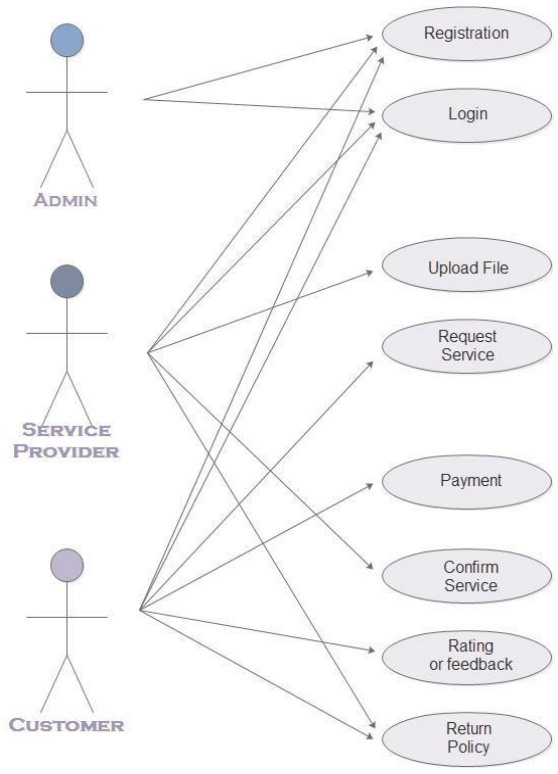


**Illustration 1 : Use Case diagram**

## 5. CONCLUSION

To ease the burden of procuring internal solutions for diverse services, the proposed system offers a range of services through on-demand service specialists. A user-friendly mobile interface facilitates easy access to our services. Backed by qualified professionals with demonstrated expertise, we streamline tasks such as residential tidying, pipe work, furniture upkeep, electrical tasks, gadget fixing, domicile painting, automobile maintenance and beyond. All of these services are just a click away, accessible anytime and anywhere.

## 6. FUTURE SCOPE

The online household services application offers a selection of frequently required home services, adapting to the evolving needs of users. Its scalability allows for expansion to meet additional service demands both locally and internationally. Moreover, the application's versatility enables easy integration of new services and payment methods. Currently offerings like house colouring, tidying, washing services, and plumbing are available, with potential for further expansion to include cell phone and PC restorations, relocation specialists, food provision, and beyond, tailored to user preferences. In terms of payment, while the current system supports online payments via MasterCard, it can be enhanced to include Visa and other payment options to cater to a broad user base.

## 7. REFERENCES


[1] Shahrzad Shahriari, Mohammadreza Shahriari, Saeid gheiji. " E-Commerce And It Impactson Global Trend And Market".International Journal of Research – Granthaalayah. Vol.3 (Iss.4): April, 2015.

[2] L.RichardYe, Yue Jeff Zhang, Dat-DaoNguyen, James Chiu,"Fee-based online services: Exploring consumers'willingness to pay ". Journal of International Technologyand Information Management.

[3] Bo Zhang, Ruihan Yong, Meizi Li, Jianguo Pan, Jifeng Huanglaa, " A Hybrid Trust Evaluation Framework for E-commerce in Online Social Network: ". 2169-3536 (c) 2016 IEEE. Translations and content mining are permitted for academic research

[4] Chenggang Zhen,Peng Cheng. "Construction of campus trading platform based on third-party online payment " 2nd International Conference on Industrial and Information Systems,IEEE,2010

[5] Sujit Kumar Basak,Irene Govender."Examining the Impact of Privacy, Security, and Trust on the TAM and TTF Models for Ecommerce Consumers: A Pilot Study",IEEE, 2009

[6] CAl Yrnn-ping, WANG Yu-ying, "Simple Said about Online Payment Risks and Preventive Measure ", China located International Conference on Infonnation Systems for Crisis Response and Management,IEEE,2010

[7] An Online System for Household Services N. M. Indravasan1 , Adarsh G2 , Shruthi C 3 , Shanthi K 4 , Dadapeer 5 BITM, Ballari