



AN ANALYSIS FOR THE NEED OF ACCOMMODATION FOR MIGRANT STUDENTS AND WORKING PROFESSIONALS: A CASE STUDY IN BANGALORE

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Abstract

Paying guest accommodations, also referred to as PGs, are a typical kind of housing for young professionals, migrants, and students in urban areas across the globe. In these kinds of agreements, tenants are called paying guests and the rental of a room within a residential property, usually under the management of a landlord. PGs encourage social interactions and networking possibilities by providing a feeling of community and camaraderie among inhabitants. The current study aims to understand the issues, face by the migrants for searching suitable accommodation and analyse the feasible solution with respect to their requirements. The s

1. Introduction

PGs are unique in that they prioritize convenience, with landlords frequently offering fully equipped rooms in addition to basic services like utilities, housekeeping, and food. To protect the safety and well-being of residents, these accommodations usually include contemporary amenities like Wi-Fi connectivity, laundry services, and security measures like CCTV cameras and access control systems. Hostels provide a unique combination of cost, fellowship, and convenience, making them essential students, and young working professionals. These shared accommodations offer a wide range of amenities designed to satisfy the requirements of its temporary residents. The main feature of a hostel is its dormitory-style lodging, where visitors can choose between private or shared rooms based on their preferences and financial situation. Hostels provide a wealth of facilities that are intended to improve the entire stay, in addition to the rooms.

Common spaces like lounges and exercise rooms promote calming and social contact. In addition, housekeeping, meal services, public dining areas for shared meals, common kitchens for self-catering, and transportation options are frequently offered, all of which enhance the holistic living experience. All things considered, PG accommodations and hostels provide a harmonious blend of coziness, accessibility, and neighbourhood, which makes them the go-to option for anyone looking for reasonably priced, welcoming apartments in busy cities.

Bangalore's fast urbanization, growing student population, and strong job market have all contributed to the city's remarkable rise in the number of paying accommodations during the last ten years. Many factors, such as the city's growing cost of living, a shortage of reasonably priced housing, and the flood of migrants looking for work in the rapidly growing tech and startup industries, are to blame for this increase. In addition, the growth of corporate offices and educational institutions has increased the popularity of accommodation in prime locations, which has led to the development of PG facilities in a variety of communities and neighbourhoods. Due to this, paid accommodation options are becoming a more and more common option for young professionals, students, and temporary residents alike, greatly enhancing the city's vibrant urban landscape.

Today's digital age has brought about a transformation in the way people search for and secure lodging, with an abundance of websites and applications catering to the demands of those seeking paid guest accommodation or hostels. These platforms offer a wide range of solutions catered to different budgets and preferences, making them indispensable tools for navigating the complicated world of urban housing. User-friendly interfaces on websites and applications that specialize in finding PGs or hostels usually enable customers to filter search results according to parameters like location, price range, facilities, and type of occupancy. Additionally, they frequently have extensive search features that let visitors look through comprehensive listings that include images, descriptions, and testimonials from past tenants.

Many of these platforms place a might not be placing high priority on security and safety, putting in place verification processes to guarantee the authenticity of listings. Furthermore, some websites and applications streamline the booking process and improve user convenience by providing extra features like integrated payment systems, quick booking capabilities, and real-time availability updates. By utilising creativity and technology, these online platforms provide people with the knowledge and tools they need to choose their accommodations wisely, thereby easing transitions and enhancing experiences in unfamiliar settings. These websites and applications are essential tools for anyone looking to locate the ideal location, whether they're looking for an adventurous hostel tucked away in a bustling neighbourhood or a comfortable private guest house in the middle of the city.

Scout- “PG made easy” which is an App that is suggested based on all the challenges and requirements gathered. Motivated by data gathered and personal experiences—which is the struggle to find appropriate PG housing. The platform is well-positioned to divert from the conventional system. Scout- “PG made easy” connects customers with a carefully chosen range of PG accommodations that prioritise safety, security, and

peace of mind in addition to meeting their practical needs. It does this by utilising smart technology and a rigorous verification process.

1.1 Objectives

1. To understand the issues, face by the migrants for searching suitable accommodation.
2. To analyse the feasible solution with respect to their requirements.

1.2 Methodology

The study has used primary data from migrants. Primary data is collected through purposive and snow ball sampling from 81 respondents belonging to the student community and working professionals. Correlation and regression analysis are done to examine the interdependence of the variables considered in the study.

2. Literature Review

According to King, Bhargav, S, Swaroop, M, Viraat, M, Nitin, Nair, Krishna, & Sinha, Garima. (2023) studied the PG-Life: A Web-Based Application for Paying Guest Life. The study used primary data from the people of Bangalore. The study primarily employed descriptive analysis, it provides a detailed description of the proposed web application and its intended functionality without conducting statistical or analytical assessments. The findings of the study reveal the development of PG-Life, a web-based application aiming to provide accessible and affordable PG services in Bangalore, emphasizing user convenience and safety considerations.

According to Ramhari, N. R., Dilip, M. N., Madhukar, S. S., & Sunil, W. P. (2022) studied the Pg Locator App. The study in the paper used secondary data related to information about PG accommodations, such as location, facilities, food, price, maps, transportation, and safety measures. The data in the study was likely analysed using qualitative and quantitative methods to evaluate the information related to PG accommodations and user preferences. The analysis has involved categorizing and interpreting the data to draw conclusions and make recommendations for the development of the "PG LOCATOR APP." The study resulted in the development of the "PG LOCATOR APP," an android application that simplifies the process of finding PG accommodations by providing detailed information on location, facilities, pricing, and safety measures.

According to Goswami, S., Nayak, V. S., Das, U. K., Singh, S. R., Kumari, S., Shruti, & Singh, S. (2022) studied Paying Guest Rental Management System. The study primarily used secondary information from various sources such as research papers, journals, and patents to gather information related to the Paying Guest management system. The data was analysed using descriptive analysis approach to discuss the development and benefits of the Paying Guest Rental Management System. The results of the study highlight the development of the Paying Guest Rental Management System to facilitate room booking processes for owners and users, improving efficiency and user satisfaction.

According to Kumar, C. R., Kumar, V., & Singh, V. (2022). explored the Upcoming Future of Paying Guest Accommodation. The study used secondary data sources such as research articles, literature reviews, and existing information related to paying guest accommodations, web applications for rental purposes, and related technologies in the field. The data was analysed by using qualitative analysis of existing information, literature, and research articles related to paying guest accommodations and web applications for rental purposes. The study resulted in the development of a Paid Guest Accommodation web application, simplifying accommodation search and saving time and costs for users.

According to Marella, S. R. R., Priya, K., & D'Souza, P. V. (2022). studied COVID-19 and precarious housing: paying guest accommodation in a metropolitan Indian city. The study used primary data by using criterion sampling and snowball sampling and a total of 26 samples were interviewed. study is qualitative in nature, involving the examination of narratives collected from tenants and operators of paying guest accommodations to understand the impact of the COVID-19 pandemic on tenant well-being and the relationship dynamics between tenants and operators. The findings of the study reveal that the COVID-19 pandemic worsened living conditions in paying guest accommodations, led to compromises on safety for affordability, caused economic and psychological stress among operators, and strained relationships between tenants and operators.

According to Ganorkar, Prof., Dhole, R., Hirudkar, M., & Rangari, D. (2021) explored a Web-Based Application for Quick Finding of Housing and Food in a City. The study primarily used secondary data, as it focused on research and analysis of existing resources, technologies, and platforms to develop a web-based application for finding housing and food in a city. The study utilized a descriptive analysis approach to discuss the development and implementation of the web-based application for quick finding of housing and food in a city. The study successfully developed a web-based application for finding accommodation facilities in a city. It utilized location-based services and Google APIs to enhance user experience and provide detailed information about hostels, messes, and rooms/flats.

According to A. Ramgadel and A. Kumar (2021) explored the Emergence and Development of Hostels as Alternative Accommodation and Their Popularity Amongst the Millennials. The study used secondary data collected through books, research journals, articles, and websites. The study used a conceptual approach based on desk research for analysis, Desk research involves reviewing and synthesizing existing literature and data without conducting new primary research. The study found that hostels are increasingly popular among Millennials, with a preference for booking hostels over conventional hotels.

According to Rattanpal P (2019), Rattanpal explored the Study of the Reasons Regarding Why People Choose to Reside in Paying Guest Households. The study used primary data collected from various sectors of Chandigarh (especially those next to educational institutes or colleges). 30 girls and 30 boys residing in paying guest households were purposively selected according to their availability and were personally interviewed. The data was analyzed by using a code designed by Rattanpal. The result shows that their lifestyles reflected aspirations influenced by media and peers, resembling what they couldn't experience while living with parents and prefer to live in paying guest households.

Yash, M. P., Choudhary, C., Lakra, A., & Dewangan, S. (2018) explored the application RentoAxis: an Android App for Paying Guest Management. The study used secondary data by gathering existing information, literature, and insights related to PG management systems, accommodation search apps, and technology in the housing sector. The data was analyzed by qualitative analysis approach feedback, system functionalities, and the usability of the RentoAxis app to conclude its effectiveness in simplifying the process of finding and managing PG accommodations. The result of the study demonstrates the effectiveness of the RentoAxis app in addressing the challenges associated with finding and managing PG accommodations, offering a valuable tool for both PG owners and users in the housing sector.

According to Akshatha.M, Bhavya.B. M (2017) studied the PG Locator application. The study used both primary and secondary data, possibly obtained from sources like app descriptions, user reviews, or news articles. It seems to utilize descriptive analysis. The text describes the evolution of technology, the definition and characteristics of mobile applications, and the features and benefits of the PG locator app. The study finds that the PG Locator app is user-friendly and time-saving for locating authorized PG accommodations, but it faces issues such as hanging or lagging in underdeveloped phones, which could hinder its effectiveness, particularly in regions with lower smartphone penetration rates.

3. Data Analysis and Findings

From figure 1, we can infer that pricing, location, amenities and reviews of the PG play major role while choosing one. So, price optimization can be directly proportional to the place, amenities that the PG provide. And the services that the PG provide will be evaluated through rating. These factors influence a person's behaviour in choosing a PG.

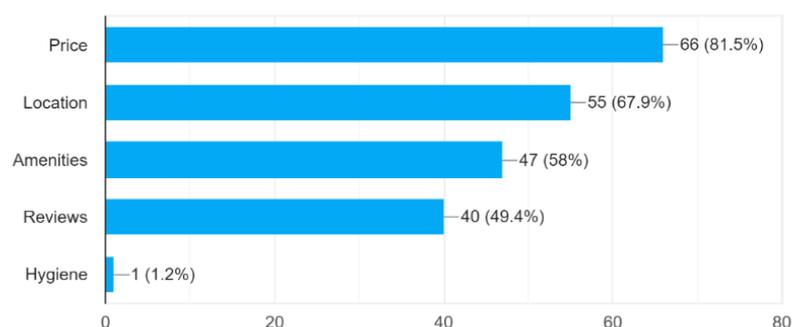


Fig 1: Important factors while choosing accommodation

From Figure 2, we can infer on what priorities does anyone take PG. It implies affordability and proximity to work/education are equally important along with amenities and facilities they provide. Proximity to work/education is the foremost thought that anyone gives to. Nearer the place lesser is the burden. And people in this focus group choose to live in a affordable PG which gives ample of amenities.

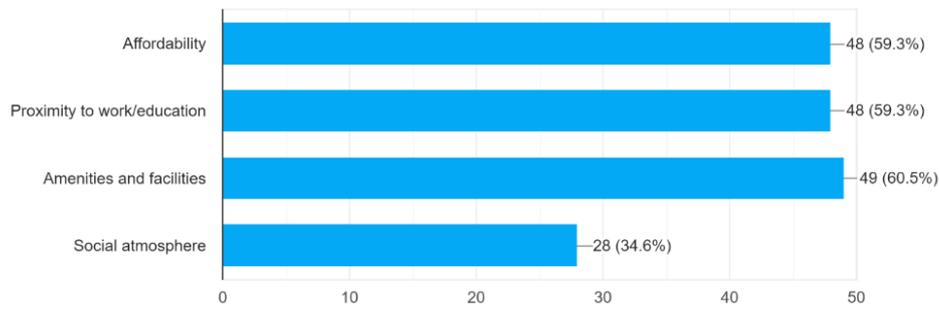


Fig 2: Priority while choosing a PG/hostel

Figure 3 talks about other important amenities that these people look for is depicted in the below chart. Out of all, laundry facility and bus stop/metro station stood top priority. And followed by common area to socialize and shared kitchen. Laundry facility is one of the most important facilities and a bus stop/metro station nearby will reduce the cost if travelling by public transport.

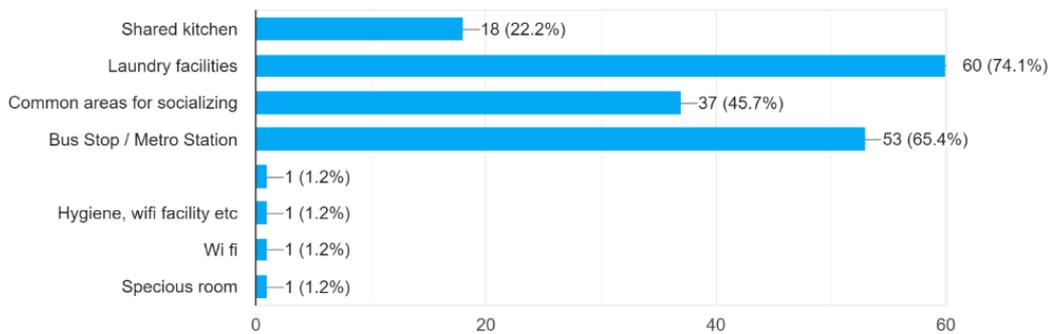


Fig 3: Essential facilities while choosing PG/hostels

Figure 4 focuses on the relation between the amount of budget they wish to spend and their income. Majorly 8k-10k is the significant bracket and salary bracket of 20k-30k people are majorly contributing to this behaviour. Followed by 10k-15k stands second and are afforded by people in 30k-40k salary bracket.

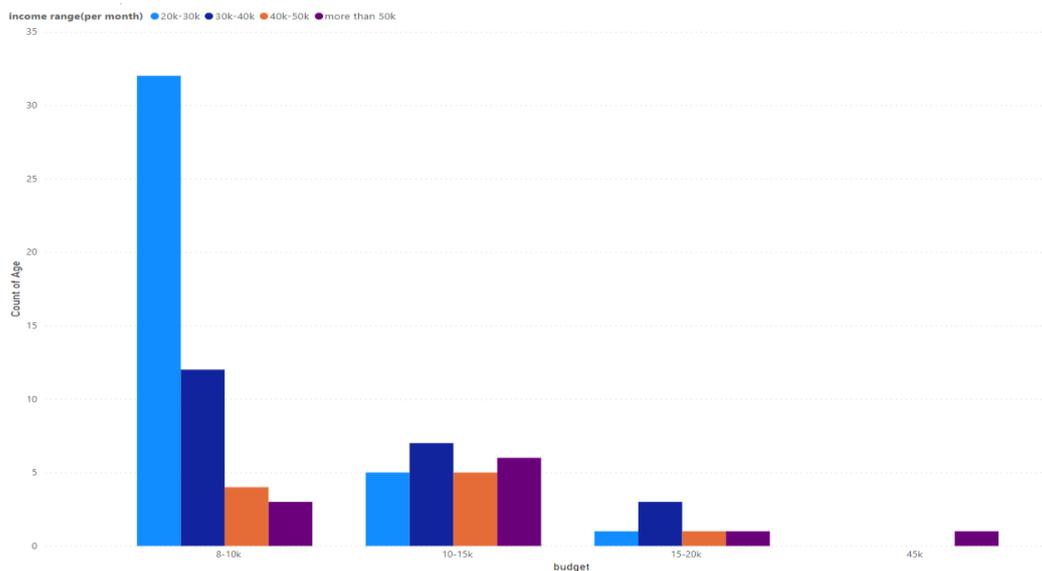


Fig 4: Income and willingness to spend on PG/hostels

Figure 5 talks about the major objective is know what were the major challenges faced by the migrants facing while finding a suitable PG: Cost of the PG, high advance and lock in period and a heavy demand has shown influence in PG finding behaviour.

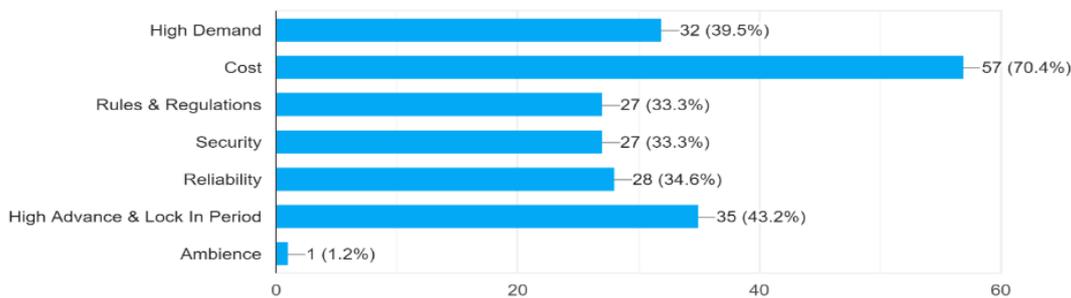


Fig 5: Issues faced during finding a PG/hostel

Figure 6 explains about the need for an app providing information about PGs, which is very high.

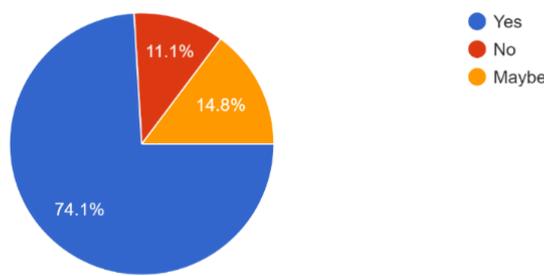


Fig 6: Need for customized mobile application

Figure 7 indicates the corelation between Income and the price that users are willing to spend on the accommodation. A correlation value of 0.37 indicates a moderately positive linear relationship between the two variables being correlated. There is a discernible but not extremely strong relationship between the variables.

```
> correlation_income_budget
[1] 0.3715594
```

Fig 7: Correlation between income and willingness to spend

Figure 8 talks about the linear regression analysis with `avg.income` as the dependent variable and `avg.budget` as the independent variable. Coefficients. Intercept: The intercept coefficient is approximately 25030 (2.503e+04). It represents the estimated average income when the average budget is zero. Avg. Budget: The coefficient for `avg.budget` is approximately 0.7772 (7.772e-01). It indicates that, on average, for every one unit increase in average budget, the average income is estimated to increase by approximately \$0.7772. Significance: The p-value associated with the coefficient for `avg.budget` is very small (0.000637), indicating that the relationship between average budget and average income is statistically significant at conventional levels of significance (typically $\alpha = 0.05$). R-squared: The multiple R-squared value is 0.1381, suggesting that

approximately 13.81% of the variance in average income can be explained by the linear relationship with average budget. The adjusted R-squared (0.1271) is similar but adjusts for the number of predictors in the model. F-statistic: The F-statistic tests the overall significance of the regression model. With a value of 12.65 and a corresponding p-value of 0.0006374, it indicates that the regression model is statistically significant overall. The results suggest that there is a significant positive relationship between average budget and average income.

```
Call:
lm(formula = df1$avg.income ~ df1$avg.budget, data = df1)

Coefficients:
(Intercept)  df1$avg.budget
 2.503e+04    7.772e-01

Error in exists(cacheKey, where = .rs.WorkingDataEnv, inherits = FALSE) :
invalid first argument
> summary(reg)

Call:
lm(formula = df1$avg.income ~ df1$avg.budget, data = df1)

Residuals:
    Min       1Q   Median       3Q      Max
-10002  -7021  -3628   2979  17979

Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)  2.503e+04  2.596e+03   9.639 5.54e-15 ***
df1$avg.budget 7.772e-01  2.185e-01   3.557 0.000637 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 8809 on 79 degrees of freedom
Multiple R-squared:  0.1381,    Adjusted R-squared:  0.1271
F-statistic: 12.65 on 1 and 79 DF,  p-value: 0.0006374
```

Fig 8: Linear regression with avg_income and avg_budget

Figure 9 indicates the results of a linear regression analysis with `avg.income` as the dependent variable and `avg.time` as the independent variable. Intercept: The intercept coefficient is approximately 33419.052. It represents the estimated average income when the average time is zero. Avg. Time: The coefficient for `avg.time` is approximately 9.017. However, its p-value is 0.942, which is much higher than the conventional significance level of 0.05. This indicates that the coefficient for `avg.time` is not statistically significant. Significance: The p-value associated with the coefficient for `avg.time` is 0.942, indicating that the relationship between average time and average income is not statistically significant. R-squared: The multiple R-squared value is very close to zero (6.758e-05), indicating that only an extremely small proportion of the variance in average income is explained by the linear relationship with average time. The adjusted R-squared is negative (-0.01259), which is unusual and suggests that adding `avg.time` to the model actually worsens its fit. Residuals: The residuals represent the differences between the observed and predicted values of average income. They range from -8757 to 16509. F-statistic: The F-statistic tests the overall significance of the regression model. With a value of 0.005339 and a corresponding p-value of 0.9419, it indicates that the regression model is not statistically significant overall. Based on this output, it seems that there is no significant linear relationship between average time and average income.

```

Call:
lm(formula = df1$avg.income ~ df1$avg.time, data = df1)

Coefficients:
(Intercept) df1$avg.time
 33419.052      9.017

Error in exists(cacheKey, where = .rs.WorkingDataEnv, inherits = FALSE) :
invalid first argument
> summary(reg2)

Call:
lm(formula = df1$avg.income ~ df1$avg.time, data = df1)

Residuals:
    Min       1Q   Median       3Q      Max
-8757  -8622   1378  11243  16509

Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)  33419.052   2444.929   13.669  <2e-16 ***
df1$avg.time     9.017    123.401    0.073   0.942
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 9488 on 79 degrees of freedom
Multiple R-squared:  6.758e-05, Adjusted R-squared:  -0.01259
F-statistic: 0.005339 on 1 and 79 DF,  p-value: 0.9419

```

Fig 9: Linear regression with avg_income and avg_time

4. Challenges Faced by The Migrants

Insufficient Understanding of Available Local Housing: Migrants find it difficult to locate acceptable housing that satisfies their needs in terms of location, cost, and amenities. They may also be unaware of the local shared accommodation choices available in their new town or city.

Authentication and Verification: Because they are unfamiliar with local laws and customs, migrants may find it difficult to confirm the legitimacy and dependability of PG accommodations. When migrants are in strange settings, they grow increasingly concerned about the safety and security of their accommodations.

Financial Constraints: When looking for shared housing, migrants may have financial difficulties, especially if they are relocating or starting a new job. They also need to consider rental agreements' affordability and transparency when navigating the shared housing market.

Social and Cultural Adjustment: Migrants may find it difficult to adjust to a new social and cultural setting, particularly if they choose to live in shared housing with people from different backgrounds. Getting beyond language obstacles and learning about regional traditions and customs increases the difficulty of locating acceptable shared housing.

5. SUGGESTIONS & RECOMMENDATION

Finding a suitable PG is very tiresome process and time taking process. The above data analysis proved that there is a necessity of a mobile application that aids people to find PGs near their college/office.

The behaviour of a person who has migrated to a metro Politian city in finding a suitable PG is influenced by various factors. The factors like price, location, amenities that a PG is providing matters to people in the first place. The secondary factors that they focus is how near is the place to their work place/college, their affordability, and amenities and facilities in PG. The analysis says that a PG which has proximity to work place/college, which is affordable and is able to provide good facilities is what they are looking for. Common facilities like laundry and proximity to bus stops and metro stations add good value and influence the choices. There is a major requirement or demand for such app for age group of 22-28 years whose income ranges are 20k-30k and 30k-40k per month as they moved in to cities for their corporate jobs majorly. And talking about the budget, majority of the people belonging to 20k-30k income bracket and in order to survive in a city they have to spend responsibly so majority of the people go to budget range is 8k-10k. The requirement of an application is needed is what we know, and there is a need to know how people get to know about these accommodations so that we can target the customers. Online platforms and references from friends and families is major channels that help people get to know about an accommodation. Marketing in online channels is easy and cost effective too. To mention about the major issues that people face while searching is cost, high advances / lock in period and followed by high demand for accommodation. PG rents vary according to seasons, demand, location & etc. and owners are not certain about it. And rarely the PG owners mention about the joining advance until the conversion is done and that amount also seems to be high in most of the accommodations.

There is a need for one such app that justifies the purpose of finding a suitable PG for migrants. The app should be reliable and user friendly. It should reduce the gap between the owner and the customer by providing relevant information legitimately. It should show accurate rating information because it somewhat effects the behaviour of the customer.

6. CONCLUSION

In conclusion, there is a need for an application that puts importance on safety, security, and verification of the PGs, Scout- "PG made easy" is well-positioned to transform the way people look for accommodations in cities. The platform seeks to deliver customers a smooth experience by mitigating the hassles associated with conventional search methods through its creative approach and user-centric focus. The need for dependable accommodation options will only increase as Bangalore continues to see fast expansion and a surge of professionals and students. As a solution that not only satisfies users' practical demands but also gives them peace of mind as they embark on their academic and professional paths, Scout- "PG made easy" serves as a symbol of promise.

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