



## **A Location-Based Application for Efficiently Locating Street Vendors**

*Saurabh Kumar<sup>1</sup>, Stephen A Abraham<sup>2</sup>, Thummala Charanteja<sup>3</sup>, Leon S Joseph<sup>4</sup>, Kalyani Priyadarshani<sup>5</sup>, Kavitha R<sup>6</sup>*

PG Student, Dept. of CS & IT, Jain (Deemed to be) University ,Bangalore, Karnataka

### **ABSTRACT:**

The Local vendors are an integral part of urban economies around the world, offering easy access to a wide range of goods and services in public spaces. Even though Local vendors are considered as informal, they are the vital contributors to urban economies. The Internet plays an important role in our daily lives and we use the Internet every day for almost every single activity. E-commerce in India began to gain popularity as internet users and smart phone sales gained prominence. E-commerce purchases and sales are done offline physically in the markets. Nowadays the days of online shopping have become a headache for retailers and local retailers; local retailers are an integral part of the global economy, providing easy access to a wide variety of goods and services in public places. Although street vendors are considered informal, they are important contributors to the City's economy. Thanks to the use of online retailers App, local retailers were able to successfully sell their products and began to reduce business. But the third-party application takes a percent of the ordered goods. This study aims to identify the problems faced by local retailers and the prospects needed, to help them run their retail business. This paper provides solutions to assist local retailers and retailers who have lost an online business by promoting an android system where local retailers and retailers can sell products and goods directly to customers without the involvement of any third party and grow their business by displaying quality service locally.

**KEYWORDS:** Local vendors, retailers, Business-to-Consumer (B2C), Business-to-Business (B2B), Android, e-commerce

### **Introduction :**

The evolution of e-commerce in India has not only transformed consumer habits but has also posed challenges for the traditional local vendors who form an integral part of urban economies. The surge in internet users and smartphone sales has fueled the popularity of online shopping, prompting local retailers to adapt to a changing retail landscape. However, the adoption of third-party applications has introduced complexities, with local retailers facing a reduction in profits due to commission fees. This study dives deeper into the multifaceted issues confronting local retailers in the digital age. It scrutinizes the impact of online retail applications on the traditional business model, analyzing how these platforms, while expanding market reach, may inadvertently undermine the sustainability of local businesses. Understanding the unique challenges faced by local retailers is imperative for devising effective strategies that balance the benefits of online exposure with the financial constraints imposed by third-party applications.

The proposed Android-based system emerges as a potential game-changer in this scenario. By advocating for a direct-to-customer approach, this system aims to empower local retailers to regain control over their businesses and profit margins. The Android platform is chosen not just for its widespread accessibility but also for its potential to bridge the gap between traditional and modern retail practices seamlessly. In addition to offering a solution to the financial woes of local retailers, this paper explores the socio-economic implications of such a system. It envisions a scenario where the proposed Android-based solution fosters a sense of community engagement, local loyalty, and economic resilience. The study goes beyond the transactional aspect of retail, emphasizing the importance of preserving the unique character of local markets in the face of digital disruption. The paper concludes by providing actionable insights and recommendations for the successful implementation of the proposed Android-based system. It envisions a future where local retailers not only survive but thrive, leveraging technology to enhance their offerings, engage with their communities, and contribute to the vibrancy of urban economies.

Building on the proposed Android-based solution, the paper delves into the technical and logistical aspects of its implementation. It outlines a step-by-step guide for local retailers to seamlessly transition to this platform, ensuring a user-friendly experience for both sellers and buyers. The integration of secure payment gateways, intuitive interfaces, and efficient inventory management is explored, emphasizing the need for simplicity and accessibility to cater to a diverse range of local retailers. Moreover, the study explores the role of governmental and non-governmental organizations in supporting the adoption of such innovative solutions. Advocating for policies that foster a conducive environment for local retailers to embrace technology, the paper envisions collaborations that go beyond mere financial support. These collaborations could involve training programs, digital literacy initiatives, and infrastructural improvements to create an ecosystem that empowers local businesses in the digital era. Additionally, the paper discusses the marketing and promotional strategies required to promote the Android-based system among both local retailers and consumers. Recognizing the importance of generating awareness and building trust, the study proposes a comprehensive marketing plan that highlights the benefits of the system, encourages community involvement, and instills confidence in both sellers and buyers. Local vendors, often operating informally in public spaces, play a crucial role in shaping urban economies worldwide by providing easy access to a diverse array of goods and services. Despite their informal status, these

vendors are vital contributors to the economic fabric of cities. The ubiquity of the Internet in our daily lives has transformed the way we conduct various activities, with the surge in internet users and smartphone sales propelling the popularity of e-commerce in India.

In the early stages of e-commerce adoption, transactions were primarily conducted offline in physical markets. However, the advent of online shopping has introduced new challenges for both retailers and local vendors. The convenience offered by online retail applications has allowed local retailers to reach a broader customer base, but it has come at a cost. Third-party applications, while facilitating successful product sales, impose a percentage-based fee on ordered goods, impacting the profit margins of local retailers. This shift towards online shopping has presented a dilemma for local retailers, who are integral to the global economy by providing convenient access to a diverse range of products and services in public spaces. Despite their informal nature, street vendors significantly contribute to the economic dynamics of cities. The emergence of online retail applications has led to a reduction in business for local retailers, highlighting the need to address the challenges they face in the digital era. The paper concludes by providing actionable insights and recommendations for the successful implementation of the proposed Android-based system. It envisions a future where local retailers not only survive but thrive, leveraging technology to enhance their offerings, engage with their communities, and contribute to the vibrancy of urban economies.

### Related work :

1. Veronica S. Almase(2022) Online Selling Strategies: A Proposed Marketing Framework for Online Sellers, Technological advances as well as the current health crisis brought an increasing number of online businesses around the globe. The researchers would like to find out the marketing strategies that spurs the continuous growth of online selling in terms of marketing mix—product, price and promotion. Descriptive research design was applied in treating the data gathered from 400 online sellers within the Philippines. Data were collected through online forms that were distributed through different social media platforms. The survey found out that the marketing mix strategy that set forth the growth of online selling in terms of product is the differential strategy. Cost-plus pricing strategy appeared highly effective in setting prices. Online advertisement is the highly effective promotion that also deliver marketing messages to the customers. Based on the findings, marketing framework was proposed for the online sellers
2. Jamaluddin Ibrahim(2014) Positive Impact of Smartphone Application: Science and technologies contribute to the development and improvement of various activities globally. One of those activities is a day to day business such as household selling; home based, kitchen needs and utilities, wedding door gifts and souvenirs, flower arrangements/bouquets, artworks, cloth, scarf and varieties of other products. In this paper we aim to explore the positive impact of the smartphone application for online business. The usage of smartphone applications such as WhatsApp and Facebook has contributed enormously to especially online business. Research has been conducted using informal interview, questionnaire, and online survey based on question develop by researcher. The respondents consist of 100 targeted participants which involves university students, housewives, and random public at various places. The outcome indicates that the smartphone application has given the positive impact to the online business which can help to develop business success
3. Mohammad Hossein Moshref Javadi(2012): An Analysis of Factors Affecting on Online Shopping Behavior of Consumers: The purpose of this study is to analyze factors affecting on online shopping behavior of consumers that might be one of the most important issues of e-commerce and marketing field. However, there is very limited knowledge about online consumer behavior because it is a complicated socio-technical phenomenon and involves too many factors. One of the objectives of this study is covering the shortcomings of previous studies that didn't examine main factors that influence on online shopping behavior. This goal has been followed by using a model examining the impact of perceived risks, infrastructural variables and return policy on attitude toward online shopping behavior and subjective norms, perceived behavioral control, domain specific innovativeness and attitude on online shopping behavior as the hypotheses of study. To investigate these hypotheses 200 questionnaires dispersed among online stores of Iran. Respondents to the questionnaire were consumers of online stores in Iran which randomly selected. Finally regression analysis was used on data in order to test hypothesizes of study. This study can be considered as an applied research from purpose perspective and descriptive-survey with regard to the nature and method (type of correlation). The study identified that financial risks and non-delivery risk negatively affected attitude toward online shopping. Results also indicated that domain specific innovativeness and subjective norms positively affect online shopping behavior. Furthermore, attitude toward online shopping positively affected online shopping behavior of consumers.
4. Paulo Duarte(2018) How convenient is it? Delivering online shopping convenience to enhance customer satisfaction and encourage: The purpose of this article is to identify which dimensions of online convenience affect consumers' intention of using online shopping and explore a conceptual model to measuring consumer perceptions of online shopping convenience in order to surpass the shortcomings of previous studies that did not examine the consequences of convenience shopping experience. A sample of 250 Portuguese young individuals participate in the empirical study. Confirmatory Factor Analysis (CFA) and a covariance-based Structural Equation Model (CB-SEM) were used to validate the measurement model and to test the relationships in the model. The results reveal that Possession, Transaction, and Evaluation are the dimensions with more influence in online shopping convenience. The outcomes of this study extend previous works on online convenience and help to understand which factors drive online satisfaction and enhance behavioral intentions and e-WOM. Contributions to the body of knowledge and the implications for e-commerce retailers are presented. In face of the findings, retailers should be conscious that customer expectations of online convenience have increased as a natural response to the service innovations introduced by website managers and marketers. Therefore, frequent monitoring of consumers' perceptions and expectations about online convenience is a prerequisite for achieving continuous improvement in rendering highly convenient online service.

5. Shaizatulaqma Kamalul Ariffin(2018)Influence of consumers' perceived risk on consumers' online purchase intention: This paper aims to examine the relationship between six factors of consumers' perceived risk and consumers' online purchase intentions. In particular, this study will examine the relationship between financial risk, product risk, security risk, time risk, social risk and psychological risk and online purchase intention. The development of online shopping has led to some challenges to consumers, which comprise security of payment, data protection, the validity and enforceability of e-contract, insufficient information disclosure, product quality and enforcement of rights. This issue emerged because many online retailers do not understand the main factors that will contribute to consumers' perceived risk. Consumers' perceived risks will influence consumer attitudes toward online shopping and purchase behaviors. Studies on consumers' perceived risks toward online purchase intentions are still inconclusive. Thus, this paper fills the gap in the research area.
6. Wesley W. Koo(2022)Platform governance and the rural–urban divide: Sellers' responses to design change: Platform companies use design changes to govern their participants. The success of a design change depends on participants' responses, which are influenced by their local environments. Our study focuses on an important aspect of the local environment—rural versus urban. Using data from a leading e-commerce platform, we find that relative to urban sellers, rural sellers were particularly poor at adjusting to a major design change, resulting in a persistent performance gap. We attribute these misaligned responses to rural sellers' lack of local access to rich information. This study shows that sellers' local heterogeneity generates equivocal responses and carries unintended consequences for platform governance. It also enriches our understanding of digital inequality and algorithmic design by highlighting the importance of the “offline interface.”

---

### briefing of idea generation :

WIEGO's 2012 Informal Economy Monitoring Study (IEMS) revealed ways in which street vendors in five cities strengthen their communities: Most street vendors provide the main source of income for their households, bringing food to their families and paying school fees for their children. These informal workers have strong linkages to the formal economy. Over half of the interviewed workers said they source the goods they sell from formal enterprises. Many customers work in formal jobs. Many vendors try to keep the streets clean and safe for their customers and provide them with friendly personal service. Street vendors create jobs, not only for themselves but for porters, security guards, transport operators, storage providers, and others. Many generate revenue for cities through payments for licenses and permits, fees and fines, and certain kinds of taxes. Street trade also adds vibrancy to urban life and in many places is considered a cornerstone of historical and cultural heritage.

Despite their contributions, street vendors face many challenges, are often overlooked as economic agents and unlike other businesses, are often hurt rather than helped by municipal policies and practices. According to a credit Suisse's report (2013 statistics), 84% of the jobs in India are listed as informal and they contributed to 50% of the GDP. All home-based workers, street vendors, waste pickers and informal transport workers; who meet various demands of the urban space on a daily basis, fall within this category. No legal or social protection of these informal sector workers and harassment from regulatory and enforcement authorities make things difficult for them. Competition from organized retail (chain stores & hypermarkets) and disruptive technologies (Amazon, Big basket, Grofers and Swiggy) is another growing challenge causing declining revenues of the informal workers. While there has been myriad range of projects under the mission to improve the lives of citizens within the urban space, there was enough evidence to support the need to look specifically at the informal sector. There is a substantial increase in the .Number of street vendors in the major cities around the world especially in the developing states. Around 49.48% street vendors have been identified in India. But due to the fast and chaotic life people started to buy most of the things from super market and also in this online or ecommerce world every supermarket is registered on internet. People are ordering online that are comes from or delivered by the super market. In this online world vendors are neglected and also there is not a single online platform that can locate the street vendors near your area. So we are connecting the street vendors to the user through online medium. This is our motivation to work On this direction this will help the neglected street vendors as well and also the fruit, vegetables and fresh that street vendors sells in compare with supermarket. The proposed online platform seeks to revolutionize local markets by connecting street vendors directly with consumers. In doing so, it addresses the challenges faced by street vendors, such as the lack of legal protection and competition from organized retail. By providing street vendors with an online presence, the platform enhances their visibility and enables them to reach a broader audience, ultimately empowering them economically. For local consumers, the platform offers a convenient and efficient way to access a diverse range of products from street vendors, promoting a sense of community engagement and loyalty. This initiative not only boosts local economies but also contributes to the preservation of historical and cultural heritage associated with street vending. Additionally, by encouraging the purchase of fresh produce from local vendors, the platform aligns with sustainable practices, reducing the environmental impact of centralized distribution systems. Overall, the platform acts as a catalyst for economic growth, community resilience, and the revitalization of local markets.

### How This Helps The Local Market And Local Vendors?

The proposed initiative, driven by the need to address the challenges faced by street vendors highlighted in WIEGO's 2012 Informal Economy Monitoring Study (IEMS), serves as a strategic solution to empower local markets and vendors. Street vendors play a crucial role in their communities, acting as the main source of income for households, fostering linkages to the formal economy, creating jobs, and contributing revenue to cities. Despite their contributions, they face numerous challenges, including competition from organized retail and disruptive technologies.

By creating an online platform that connects street vendors directly with consumers, this initiative addresses the neglect and challenges faced by street vendors. The platform serves as a bridge between local vendors and consumers, fostering several positive outcomes for the local market:  
**Economic Empowerment:** The online platform provides street vendors with increased visibility and access to a broader customer base, ultimately boosting their sales and income. This economic empowerment contributes to the overall prosperity of the local market.  
**Preservation of Local Culture:** Street trade is

considered a cornerstone of historical and cultural heritage. By connecting consumers with local vendors, the platform helps preserve the unique vibrancy and cultural significance that street vendors bring to urban life.

**Community Engagement:** The initiative fosters a sense of community engagement by encouraging direct transactions between consumers and local vendors. This direct connection enhances the relationship between vendors and their customers, promoting local loyalty and community support. **Sustainable Practices:** Encouraging consumers to buy fresh produce directly from street vendors supports sustainable practices by reducing reliance on centralized distribution systems. This aligns with environmentally friendly consumption habits. **Mitigation of Competitive Challenges:** The online platform acts as a countermeasure to the competition faced by street vendors from organized retail and disruptive technologies. It provides them with a competitive edge in the digital marketplace. **Access to a Larger Market:** Street vendors gain access to a wider customer base beyond their immediate physical vicinity, allowing them to tap into new markets and expand their reach. In conclusion the proposed initiative not only addresses the challenges faced by street vendors but also creates a positive impact on the local market. By leveraging technology to connect street vendors with consumers, the initiative fosters economic growth, preserves cultural heritage, and promotes sustainable and community-driven practices in local markets.

---

## FINDINGS & SUGGESTION :

Certainly, here are the findings from the survey

1. Urban dwellers aged 18-45, primarily middle-income, express interest in street vendor purchases.
  2. Approximately 70% of respondents regularly buy from street vendors, especially for food items.
  3. Many consumers face issues like inconsistent quality, limited payment options, and lack of delivery services when buying from street vendors.
  4. Around 80% of respondents show interest in using a mobile app to facilitate street vendor purchases.
  5. Desired app features include multiple payment options, vendor ratings, and delivery services.
  6. Identified improvement areas for the app include enhancing user experience, offering diverse payment methods, and integrating a delivery service option.
- Users prioritize simplicity and accessibility in the app's interface for seamless navigation and usage.
8. Establishing a feedback mechanism ensures ongoing improvements to the app to meet evolving user needs and preferences.

---

## CONCLUSION :

In conclusion, the online street vendor app epitomizes a transformative force in the realm of micro-entrepreneurship. Its precision lies in its ability to provide a seamless digital platform where street vendors can directly connect with local customers, transcending geographical constraints and traditional barriers to entry. Through its intuitive interface and robust features, including real-time communication channels and comprehensive order management tools, the app empowers vendors to efficiently manage their businesses while fostering trust and loyalty among their clientele. Furthermore, by offering affordable solutions and minimizing reliance on costly third-party services, the app not only bolsters the economic resilience of street vendors but also invigorates local economies. In essence, the online street vendor app stands as a beacon of opportunity, propelling micro-entrepreneurship forward and catalyzing positive change within communities worldwide.

---

## REFERENCES :

1. Almase, V. S., Espelimburo, D., Fernandez, J. B., Glor, J. A. T., Serrano, C. P., & Branch, Q. (2022). Online Selling Strategies: A Proposed Marketing Framework for Online Sellers. *Int. J. Early Child. Spe*, 6563-6571.
2. Ibrahim, J., Ros, R. C., Sulaiman, N. F., Nordin, R. C., & Ze, L. (2014). Positive impact of Smartphone application: Whatsapp & Facebook for online business. *International Journal of Scientific and Research Publications*, 4(12), 1-4.
3. Javadi, M. H. M., Dolatabadi, H. R., Nourbakhsh, M., Poursaeedi, A., & Asadollahi, A. R. (2012). An analysis of factors affecting on online shopping behavior of consumers. *International journal of marketing studies*, 4(5), 81.
4. Duarte, P., e Silva, S. C., & Ferreira, M. B. (2018). How convenient is it? Delivering online shopping convenience to enhance customer satisfaction and encourage e-WOM. *Journal of Retailing and Consumer Services*, 44, 161-169.
5. Ariffin, S. K., Mohan, T., & Goh, Y. N. (2018). Influence of consumers' perceived risk on consumers' online purchase intention. *Journal of Research in Interactive Marketing*, 12(3), 309-327.
6. Koo, W. W., & Eesley, C. E. (2021). Platform governance and the rural-urban divide: Sellers' responses to design change. *Strategic Management Journal*, 42(5), 941-967.