TIKTAK: A Mobile Application for Availing and Advertising On-Demand Services Based on the TVL Track of the K-to-12 PROGRAM

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ABSTRACT

The capstone project developed "TikTak," a mobile application for Android and iOS, aiming to transform the on-demand service sector, particularly household and wellness services. Traditionally reliant on inefficient methods like word-of-mouth, TikTak provides a user-friendly platform that improves interactions between service providers and consumers. It enables service providers to manage services, receive reviews, and handle bookings efficiently, while consumers find, evaluate, and book services reliably. Incorporating skills from the K-to-12 Technical-Vocational-Livelihood (TVL) track, TikTak allows providers to leverage their vocational training for better marketability. The development utilized the Iterative Model and advanced technologies, including Google's Flutter framework and Dart programming language, ensuring a consistent user interface and robust performance. The Iterative Model facilitated continuous improvement through multiple iterations. TikTak underwent rigorous testing, including functionality and user acceptance testing based on the UTAUT model, confirming that it met its objectives as a reliable and user-friendly platform. In conclusion, TikTak enhances the efficiency of on-demand service advertising and availing, addressing challenges in the informal service sectors and laying a foundation for further innovation.

KEYWORDS: *Mobile Marketplace, service availability, user-generated reviews, community-based evaluation, skilled labor marketplace*

INTRODUCTION

The on-demand economy represents a significant shift in how services are provided and consumed in the modern business landscape. Characterized by the ability to serve consumers whenever and wherever they need, this economic

model has gained substantial popularity, driven by the rise of companies like Uber and Airbnb. Shea and Fikru's (2020) comprehensive review highlights the defining traits of the gig economy, such as the flexibility and independence it offers to workers. However, it also points out the critical need for regulatory frameworks to protect workers' rights and ensure safety standards.

The online on-demand services market is projected to experience significant growth from 2024 to 2032, driven by increasing consumer reliance on digital platforms for home services such as repairs, maintenance, cleaning, and health and wellness services. The market, valued at USD 4.5 billion in 2023, is expected to reach USD 17.5 billion by 2032, with a CAGR of 16.7%. Key players in the market include Amazon.com, HouseJoy, and Helpling. Additionally, the online food delivery segment is set to grow from USD 148.07 billion in 2023 to USD 451.92 billion by 2032, led by companies like DoorDash, Just Eat Takeaway, and Zomato, with the Asia Pacific region showing the highest growth due to its large, young working population (Expert Market Research, 2024; Research and Markets, 2023).

Moreover, according to IBON Foundation, in the Philippines, household and wellness services are part of the informal economy, meaning they are not formally registered and lack adequate security (IBON Foundation, 2021). Consequently, workers in this sector adhere to very traditional methods for their work. These methods include word-of-mouth marketing, placing advertisements, posting on social media, and using directories. The absence of dedicated platforms, according to Irena (2022), forces them to rely on these less effective strategies.

When it comes to finding on-demand household services, people often struggle with issues of speed and reliability, particularly when looking for skilled professionals. The current methods—asking through word of mouth, using telephone or online directories, browsing social network posts or ads, and using a few apps are very slow. This is because these methods require manually checking numerous contacts and sources to locate a suitable provider, as evident in the study of Kolte (2021). Additionally, 85.7 percent of surveyed respondents struggle to find handyman services. It is further discussed in the study that locating a qualified and reliable handyman is difficult and often time-consuming because the necessary information is dispersed across various channels. Homeowners must conduct thorough research, which requires significant time, patience, and effort (Tandoc, 2023). Furthermore, 63 percent of on-demand

service providers say that they are working with on-demand startups to earn supplemental income, 46 percent of people working in this economy say they are working because of their flexible schedule, 70 percent of on-demand workers are satisfied with their work, and only 11 percent of workers said that they work in on-demand economy as they could not find any other job (Chriss, 2018).

Given the global impact of the on-demand services, this may also be implemented in the Philippines, giving opportunities to both consumers and skilled-workers in term of convenience and income generating means respectively. Presented that there is a rise of on-demand platforms in the Philippines, such as short-term lodging marketplace Airbnb and ride-hailing application Uber (Nicholas, 2018). On the other hand, the Philippine Statistics Authority (PSA) analyzed the employment situation of youth during the pandemic (PSA, 2022). The study revealed a significant increase in the youth unemployment rate from 7.05 percent in 2020 to 8.49 percent in 2021, reflecting a challenging job market for young people amid the global health crisis. Notably, the unemployment rate among college graduates remained relatively stable compared to those with only a high school education. This finding suggests that the pandemic's impact on employment opportunities varied by educational attainment. The report underscores the need for targeted interventions to support youth employment, particularly as recovery efforts continue post-pandemic (PSA, 2022).

Furthermore, unemployment and underutilization of Technical-Vocational Education and Training (TVET) skills in the Philippines persist as significant challenges. Studies highlight the effectiveness of TVET programs in enhancing employability skills and increasing employment rates among graduates (Mariano, 2023). However, job-skills mismatch remains a prevalent issue, leading to high unemployment rates, especially among the youth (Andreas, 2020). Factors such as household and family duties, traditional gender norms, and the choice of programs contribute to hindering female TVET graduates from entering employment despite their training (Talento, 2022). Additionally, research indicates a high incidence of job mismatch among employed TVL graduates, emphasizing the importance of addressing this issue through intervention initiatives to improve the implementation of TVL programs (Autentico et. al, 2020). Efforts to bridge the gap between TVET skills and employment opportunities are crucial for reducing unemployment and maximizing the potential of skilled graduates in the Philippines.

In line with the predicament in regards with the means of income

generation, as well as maximizing the use of skills of each individual, and to address the difficulty in searching for on-demand services, the proponent came up with the idea of creating a mobile application that focuses as a tool of discovering/finding and advertising specific services that includes blue collar jobs like carpentry, housekeeping, mechanic, plumbing, welding, general labor (DepEd, 2017).. The application also integrates services included in the 44 Ways to Make Money which are coaching, tutoring, handicrafts-related tasks, tours, catering and food services, running errands, driving, and cleaning homes. Some of the services also include skills based on the Technical-Vocation-Livelihood (TVL) Track specialization of the K-to-12 program which are: Automotive Servicing, Construction Painting, Domestic Refrigeration and Airconditioning Servicing, Electrical Installation and Maintenance, Electronic Products Assembly and Servicing, Furniture Making, Software Development Services, Computer Systems Servicing, and Digital Illustration Services. Other services also include the following: Barbering, Beauty/ Nail Care, Caregiving, Events Management Services, Hairdressing, Tailoring, Wellness Massage, and Travel Services (Craigslist, 2006).

METHODS

The researcher uses the Iterative model as the SDLC for the entire development of the application. The development of the TikTak mobile application utilizing the Iterative Model involved a systematic approach across four main stages: Planning, Requirements Analysis and Design, Implementation, and Evaluation. During the planning phase, the scope of the project is defined, including the identification of key features and functionalities that the TikTak app needs to support. This phase involves setting clear objectives, determining the resources required, and establishing a timeline for completion. The project team decides on the technical architecture, the tools, and frameworks to be used (like Flutter and Appwrite), and the platforms (iOS and Android) on which the app will be deployed. This stage sets the groundwork for the subsequent phases of the app development, leading into the Requirements Analysis and Design phase.

The Requirements Analysis and Design phase involved gathering data from various related research and articles. For TikTak, this includes determining the needs of both service providers and clients using the app. Based on these requirements, a detailed software design is created. This design outlines the app's user interface, functionality, data handling, and interaction with the backend servers. The design is intended to ensure the app is user-friendly,

efficient, and scalable. The conceptual framework and design mockups were developed during this stage, aiming to solidify the functional blueprint of the app. The process transitions smoothly into the Implementation phase next.

In the Implementation phase, the actual coding of the application took place. The developer wrote the code according to the design specifications set out in the previous phase. For TikTak, this involved coding the various functionalities such as user registration, search and booking mechanisms, review systems, and backend service (BaaS) integration. This phase worked in smaller cycles, focusing on individual features or sets of features, which allows developers to test and refine the app progressively. This approach ensured that each feature was functional and met the project's quality standards before moving on to the next.

After the implementation phase, the app underwent an Evaluation phase where the implemented features are tested against the initial requirements. This includes functional testing using the Black Box method and user acceptance testing using the Unified Theory of Acceptance and Use of Technology (UTAUT). Feedback was collected from test users, and any issues or bugs identified were addressed. This phase is crucial for validating the functionality of the application and ensuring that it meets the end-users' needs effectively.

System Design. To ensure the Tiktak application functions smoothly across different platforms, it's crucial to define clear minimum requirements for both Android and iOS users. Here's a summarized outline of these requirements, considering the app's features and the technologies used in its development:

Table 1
TikTak's System Architecture

Target Platform	Hardware Architecture	Supported Versions	Best Effort Versions	Unsupported Versions
Android SDK	x64, Arm32, Arm64	API level 21 to 34	API level 19 to 20	API level 18 and earlier
iOS	Arm64	17	12 to 16	11 and earlier

Furthermore, the developed application runs based on the following minimum hardware and software requirements:

Android Devices:

- *Operating System*: Android 11 or higher. This ensures compatibility with the latest features and security updates.
- *Processor*: Quad-core 1.4 GHz or higher. A faster processor will handle the app's operations more efficiently, including the UI interactions and background processes.
- *RAM*: Minimum of 2GB. Adequate RAM is necessary for smooth multitasking and fluid navigation within the app.
- *Storage*: At least 100MB of free space for app installation and additional space for data/cache storage.
- *Screen Resolution*: 720p (1280x720) or higher. This ensures that the app's UI elements are displayed clearly.
- *Internet Connection*: minimum of 25 mbps. Required for accessing the app's online features.

iOS Devices:

- *Operating System*: iOS 12 or higher. This version supports the necessary APIs and features for the app.
- *Processor*: A9 chip or later. The A9 chip provides enough computational power for the app's demands.
- *RAM*: Minimum of 2GB. Similar to Android, this supports the app's performance needs.
- *Storage*: At least 100MB of free space for installation, with additional space for user data and cache.
- *Screen Resolution*: At least 640 x 1136 pixels. This ensures the app's visual elements are crisp and accessible.
- *Internet Connection*: minimum of 25 mbps. Required for real-time data exchange and service functionalities.

These requirements are designed to ensure that the TikTak app runs efficiently on a broad range of devices, providing a good user experience by balancing performance with accessibility. Users should also have an active internet connection to utilize all the features of the TikTak application, including service browsing, booking, and feedback mechanisms.

Description of Prototype. The design of the TikTak prototype represents a pivotal step in realizing the vision of a comprehensive mobile application that caters to the growing demand for on-demand services. This prototype, conceived to address the multifaceted needs of both service providers and consumers within the on-demand industry, integrates user-centered design principles to ensure ease of use, functionality, and accessibility.

a. Home Page

Figure 2.1. *Home Page*

Figure 2.1 shows the home page of the TikTak mobile application. The home page helps the user navigate through several application's features such as *a. Find Services*, *b. Pending Services*, *c. On Going Services*, *d. Completed Services*

b. Search Results and Search Bar

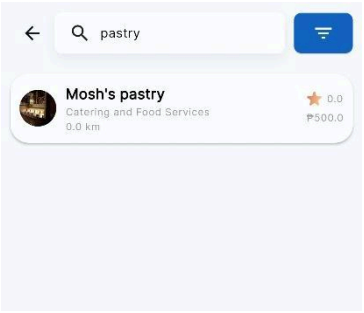

Figure 2.2. *Search Results and Search Bar*

Figure 2.2 shows the search bar and search results features of the TikTak mobile application. The user can input the service name or service type for which will affect the list of results.

c. Service Manager

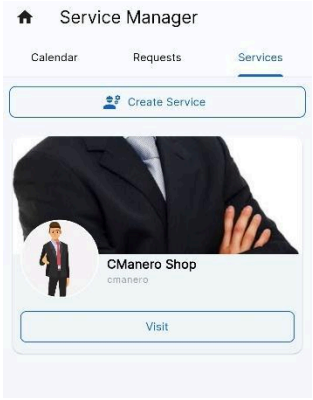

Figure 2.3 shows the Service Manager feature of the TikTak application wherein the user can visit his/her service page, navigating the details of the offered service(s) if any.

Figure 2.3. *Service Manager*

d. Menu

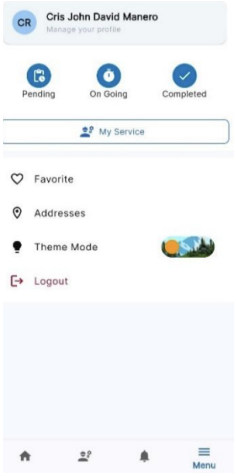

Figure 2.4 presents the menu for the TikTak mobile application. The user can navigate the following features through this interface: *a. Manage Profile, b. My Service, c. Pending Services, d. On Going Services, e. Completed Services, f. Favorites, g. Addresses, h. Theme Mode, i. Logout*

Figure 2.4. *Menu*

e. Notifications

Figure 2.5 shows the notification feature of the TikTak mobile application. This function allows the user to receive notices based on the various activities executed using the application.

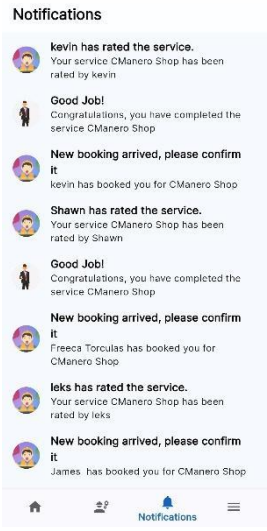

Figure 2.5. *Notifications*

Development and Testing

The development of the application leverages a suite of sophisticated tools, enabling comprehensive support across both Android and iOS platforms. These tools include:

1. **Flutter**: A versatile framework employed for the construction of the TikTak mobile application, ensuring seamless operation across diverse platforms.
2. **Dart**: The programming language utilized within the Flutter framework, facilitating efficient app development.
3. **Mapbox**: An advanced API that integrates mapping features, including direction and navigation capabilities, enhancing the user experience.
4. **Appwrite**: A robust alternative to Firebase, providing backend services such as database management, authentication, and storage solutions for the application.
5. **Material Design**: An integrated User Interface (UI) framework specifically designed for Flutter, which streamlines the design process and ensures a cohesive aesthetic throughout the application.

This comprehensive toolkit not only facilitates the efficient development of the TikTak mobile application but also ensures a robust, user-friendly experience across multiple platforms.

Additionally, creating a comprehensive Test Plan for the TikTak mobile application involves utilizing Black Box Testing methods and the Unified Theory of Acceptance and Use of Technology (UTAUT) model to ensure thorough evaluation. Black Box Testing focuses on the external workings of the software, without knowing its internal workings, to validate functionality and overall performance. The UTAUT model helps assess user acceptance and readiness to use the technology, providing insights into user satisfaction and potential adoption barriers.

Black Box Testing. Black Box Testing plays a pivotal role in the development and refinement of the TikTak mobile application by offering a comprehensive assessment of its functionality, usability, and overall performance from the end-user's perspective. This testing methodology focuses on evaluating the software based solely on its inputs and outputs, without any knowledge of its internal workings. Such an approach is crucial for TikTak, as it ensures that the app meets its intended specifications and user expectations without getting bogged down by the complexities of the codebase. This method effectively uncovers bugs, design flaws, or usability obstacles that could hinder the app's adoption or satisfaction levels among its target audience.

Table 2
TikTak's Functionalities and Expected Outcome

Functionality	**Expected Outcome**
Login	The user should be able to log into his account.
Sign-up	The user should be able to create a new account.
Sign-in with Google	The user should be able to create a new account using Google credentials.
Home	
Find Service	The user should be able to search for a specific service name and provider.
Search Box	The user should be able to key in searches for a specific service name and provider.
Recent Searches	The user should be able to see the history of recent searches.

Pending Services	The user can view pending services.
Booked Services	The user can view successfully booked services.
On going Services	The user can view ongoing services.
Completed Services	The user can view completed services.
Ratings	The user can rate and write comment for the service provider.
Cancelled Services	The user can cancel the booking and see the list of cancelled services.
Rejected Services	The user can view the list of rejected bookings.
Services	
Add New Address	The user can set a new address.
Confirm Location	The user can confirm the location.
Display Services	The user should be able to see the services available.
View Service	The user should be able to see service details (e.g. service offer, featured images, etc.)
View Distance / Distance from Me	The user can view the distance from his/her selected location from the service provider
Select Address	The user can select his/her address.
Map Route Information	The user can view map route information.
Service Offer	Users can toggle to the "service offer" tab to view service details (e.g. service price, duration, etc.)
About Us	The user can see and expand “about us” details.
Details	The user can see “details” information.
Book Now	The user can book a specific service.
Add to Favorites	The user can add a specific service to favorites.
Notifications	the user can be notified of various activities (e.g. acceptance of request).
Menu	
Upload Profile Image	The user can upload a profile image.
Update Profile Name	The user can update the profile name.
Edit Mobile Number	The user can update mobile number.
Calendar	The service provider can see booking requests per date.
Requests	The service provider can view a list of requests.
Booking Status	The user can view the service status.

Booking Details and Service Information	The user can view the booking details and service information.
Reject Booking Request	The user can reject booking request(s).
Approve Booking Request	The user can approve booking request(s).
Create Service	The user can create his/her own service to offer.
Service Overview	The user can specify the service overview details which include the following: ● Name ● Username ● Service Offer ● Service Description
Service Offers	The user can specify the service offer details which include the following: ● Cost ● Duration ● Service Availability ● Time Range
Service Features	The user can specify or upload service feature details which include the following: ● Video Feature ● Photos Feature
Service Profile	The user can specify service profile details which include the following: ● Logo Photo ● Cover Photo
Service Information	The user can specify service information details which include the following: ● Location ● Mobile number ● E-mail
Draft Services	The user can view the list of draft service profiles.
Visit Service Profile	The user can visit his/her service profile.
Addresses	The application enables the user to add a new address or update existing address.

Theme Mode	The application enables the user to toggle between dark mode and light mode.
Logout	The application enables the user to logout from his/her account.

The functions were all rated with the following categories: FF for Fully Functional, PF for Partially Functional or functionalities hat are lacking or not yet complete, and NF for functionalities that are functional at all.

The Unified Theory of Acceptance and Use of Technology (UTAUT) plays a crucial role in the development and success of the TikTak mobile application by providing a comprehensive framework to assess how potential users might accept and use the technology. This model is particularly important for TikTak as it aims to serve a diverse user base with varying degrees of technological proficiency and expectations from on-demand service platforms. By evaluating factors such as performance expectancy, effort expectancy, social influence, and facilitating conditions, the UTAUT model helps identify what drives user adoption and continued use of the app. This understanding enables the TikTak development team to tailor the application's features, usability, and support services to meet the users' needs effectively. Table 4.2 shows the categories of the UTAUT evaluation that is divided into five (5): 1. Performance Expectancy (PE), 2. Effort Expectancy (EE), 3. Social Influence (SI), 4. Facilitating Conditions (FC), and Behavioral Intentions (BI).

The respondents for the UTAUT survey on the TikTak mobile application comprised 39 individuals, predominantly students (74%), with professionals making up the remaining 26 percent. This diverse mix of respondents provides valuable insights into the app's acceptance across different demographic segments. The students' perspective is crucial in understanding the app's usability, appeal, and potential adoption within a tech-savvy demographic that values convenience, efficiency, and user-friendly interfaces. On the other hand, the professionals' feedback offers insights into the app's practicality, effectiveness, and potential for professional and personal use, highlighting its utility in facilitating services in a more structured and potentially demanding environment. This blend of respondents ensures a balanced view of the app's acceptance, catering to both casual and professional needs, and helps identify areas of improvement to enhance user experience and increase adoption rates across varied user groups.

RESULTS

Black Box Testing Results

The Black Box testing results of the TikTak application (See Appendix A) showcases a successful evaluation of the application's functionalities across a broad spectrum of features. The testing encompasses essential functionalities such as login, sign-up, service discovery, and user profile management, with all tested functionalities marked as Fully Functional (FF), except for the ability to edit mobile numbers, which is Partially Functional (PF). This comprehensive testing ensures that users can navigate through the app, search for and avail services, manage their profiles, and interact with service providers with ease. The operation in toggling between themes, updating profile information, and handling service requests indicates a thoughtful design and implementation of the app. The singular issue identified with mobile number updates points to a minor area for improvement. Overall, the black box testing results reflect positively on TikTak's functionality making it a dependable platform for service availing and advertising.

UTAUT Results

The UTAUT (Unified Theory of Acceptance and Use of Technology) questionnaire results (see Appendix B) provided give us insight into the perceptions and intentions of the respondents regarding the TikTak app, across five different areas: Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Facilitating Conditions (FC), and Behavioral Intentions (BI). These areas are crucial in understanding how users interact with technology and their willingness to adopt it. The mean scores for each area, interpreted against a predefined scale, allow for a nuanced discussion of these perceptions.

The Performance Expectancy (PE), which gauges the degree to which an individual believes that using the system will help him or her to attain gains in job performance, shows very high scores across all items (PE1 = 4.51, PE2 = 4.49, PE3 = 4.90, PE4 = 4.38). This indicates a strong agreement among the respondents that TikTak is useful, provides necessary tools for services, and saves time. Particularly, the score for PE3 highlights an exceptional endorsement of the app's convenience.

Effort Expectancy (EE) reflects how easy the respondents find the application to use. With scores (EE1 = 4.38, EE2 = 4.62, EE3 = 4.74, EE4 = 4.54) indicating that respondents agree to strongly agree that TikTak is easy to learn, use, and is overall user-friendly. The score for EE3 (4.74) suggests an

especially strong agreement regarding the app's ease of use.

Social Influence (SI) measures the extent to which users perceive that important other (e.g., friends, family) believe they should use the new system. Scores in this domain (SI1 = 4.15, SI2 = 3.95, SI3 = 4.26, SI4 = 4.38) span from agreement to strong agreement, implying that respondents feel a moderate to strong social pressure or support to use TikTak. The slightly lower score for SI2 indicates a bit less perceived pressure from influential people in the respondents' behaviors towards using the app.

Facilitating Conditions (FC) assess the degree to which an individual believes that a technical infrastructure exists to support the use of the system. The scores here (FC1 = 4.36, FC2 = 4.21, FC3 = 4.21, FC4 = 4.33) show that respondents agree they have the resources, knowledge, compatibility, and support needed to use TikTak effectively. This suggests that, from a technical and resource standpoint, there are few barriers to adoption.

Behavioral Intentions (BI), predicting the users' intentions to use the system, present scores (BI1 = 4.08, BI2 = 4.10, BI3 = 4.23, BI4 = 4.08) that indicate an overall agreement with intentions to use TikTak in the future, albeit this domain has the lowest mean scores among all. This could suggest while there's a positive inclination towards using the app, it may not be as strong as the beliefs in its performance or ease of use.

The mean scores across all areas of the UTUAT questionnaire suggest a positive perception of TikTak among the respondents, with particularly strong endorsements for its performance expectancy and effort expectancy. Social influence and facilitating conditions also score well, indicating perceived social support and adequate resources/compatibility for using the app. Behavioral intentions, while still positive, suggest a slightly weaker but still favorable inclination towards future use of the app. This comprehensive analysis underscores the potential for TikTak's acceptance and continued use among this group, highlighting areas of strength and opportunities for enhancing user engagement and adoption strategies.

Discussing the results with regards to attaining each specific objectives, for first objective which is enabling clients to access and avail services through an interface for service transactions, the app's primary functions, such as logging in, signing up, searching for services, and booking, were all marked as fully

functional (FF) during black box testing. Users could easily navigate through the application to find and book services, indicating that the interface for service transactions was effective and user-friendly as presented in the results of the Effort Expectancy (EE) with an average mean of 4.47 (Strongly Agree). Moreover, Performance Expectancy scores were high, with respondents strongly agreeing that using TikTak would enable them to accomplish tasks more quickly and increase productivity. This indicates that the app effectively facilitated service transactions as intended.

For the second objective which is allowing service providers to post their offerings and rates, integrating user reviews and ratings, the result for the functional testing presents that service providers could manage profiles, update service offerings, and handle booking requests successfully, with most functionalities tested being fully operational. The ability to receive ratings and feedback was also fully functional. Additionally, high scores in Facilitating Conditions (4.36 average) indicated that users had the resources and knowledge required to use the app, including service providers posting their services and rates.

For the third objective which is implementing a system for service providers to receive and approve customer requests, the functionality testing confirmed that service providers could approve or reject booking requests efficiently. The system for managing booking status, details, and service information was fully functional as well. Also, positive feedback on Effort Expectancy, with strong agreement on the app being easy to use (average score 4.74), supports that the system for receiving and approving requests was user-friendly for service providers.

Lastly, for the objective that aims to a include variety of blue-collar and skill-specific services, the functionality testing suggests that the application displayed a range of services based on the K-to-12 TVL track and "44 Ways to Make Money" by Laura Shin, ensuring diverse service offerings. The ability to display services and detailed information was fully functional. Social Influence scores showed that significant others and colleagues would support the use of the app, implying that the range of services offered was relevant and useful to the users' social and professional circles.

Overall, the TikTak mobile application successfully met its core objectives, as validated by functionality testing and UTAUT survey results. The

app's functionalities were largely operational, ensuring smooth service transactions and management for both consumers and service providers. The positive feedback from users further corroborated the app's ease of use, resource accessibility, and social support, underscoring its potential impact on the on-demand service market.

CONCLUSION

The capstone project on the TikTak mobile application represents a significant stride towards addressing the challenges in the on-demand service industry, particularly in the Philippines. Aimed at leveraging the Technical-Vocational-Livelihood (TVL) track of the K-to-12 program and various service sectors, the project set forth to create a versatile platform for both service providers and consumers. The project's core objectives focused on developing a user-friendly mobile application to facilitate the advertisement and availing of services, integrating crowdsourcing for service provider credibility, and providing a means for individuals to generate income while utilizing their skills efficiently.

The successful development and iterative refinement of the TikTak application, grounded in the principles of the Iterative Model and supported by comprehensive functionality testing and user feedback through the Unified Theory of Acceptance and Use of Technology (UTAUT) framework, underscore the achievement of these objectives. The application's design, incorporating a range of features from service browsing to booking and feedback mechanisms, has been tailored to ensure accessibility, convenience, and ease of use across Android and iOS platforms. The implementation of the project has not only demonstrated the feasibility of the proposed solution but also its potential impact on the on-demand service market.

Feedback from the UTAUT survey, characterized by strong endorsements in Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions, alongside positive Behavioral Intentions, highlights the application's acceptance among its target users. This reflects a promising outlook for TikTak's adoption and its capacity to fulfill the identified market need for a centralized platform for on-demand services. The project's contribution extends beyond the application itself, offering insights into user expectations and preferences within the on-demand economy, thereby informing future developments in the sector.

In conclusion, the capstone project has successfully accomplished its

objectives, marking a pivotal step towards innovating the way on-demand services are availed and advertised. TikTak emerges as a significant contribution to the on-demand service industry, promising to enhance economic opportunities for service providers while providing consumers with a reliable, efficient, and comprehensive platform for meeting their service needs. The project lays a solid foundation for further research and development, encouraging continuous improvement and adaptation to the evolving demands of the on-demand economy.

Recommendations for further development and refinement of TikTak may include expanding the range of services offered, enhancing user interface and interaction design for greater usability, and implementing advanced features such as real-time tracking of service providers. Continuous user feedback and testing are essential to iterate and improve the application, ensuring it meets the evolving needs of its users. Additionally, strategic marketing and partnerships could be pursued to increase the application's visibility and user base and also a more comprehensive process in verifying the credibility of the service providers.

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