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Assessing the Impact of Proposed Tourism Apps on The Development and Economic of SME Asnaf Businesses in Perlis: A Qualitative Analysis Based on Tourist Perceptions

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Abstract: The integration of tourism apps and the empowerment of *asnaf* entrepreneurs represent pivotal strategies in fostering sustainable economic development in Malaysia. Perlis has become one of the most visited states because of their natural beauty and unique attractions. By the year Visit Perlis 2024-2025, the state of Perlis has started the application of digital business, which is "Perlis Go Digital". This initiative has been done in order to encourage the *asnaf* entrepreneurs to change towards digitalization. One qualitative study has been conducted to explore the intersection of the proposed tourism apps and tourist perspectives to understand their collective impact on the sustainable economy of SME and *asnaf* development. The researchers collected data through interviews and analyzed it using thematic analysis. Thematic analysis is a widely used qualitative research method for identifying, analyzing, and reporting themes within interview data. This method is used to investigate how tourism apps shape tourist experiences. Findings indicate that tourism apps enhance the visibility and accessibility of SME *asnaf* businesses, and facilitate market expansion. However, the study reveals that while tourism apps provide convenience and personalized recommendations, issues like data accuracy can affect user satisfaction. By integrating the perspectives of tourists, this study contributes to the development of inclusive digital ecosystems that promote equitable economic growth of SME *asnaf* businesses and enhance the overall tourism experience.

Keywords: *Tourism apps, Asnaf entrepreneurs, Thematic analysis, Tourist perceptions, Perlis.*

1. Introduction and Background

The use of technology in business has become increasingly vital as modernization drives entrepreneurs to shift from traditional methods to advanced digital solutions. Many businesses today embrace digital transformation to stay competitive in a rapidly changing environment. This shift is particularly relevant in the context of tourism and small business digitalization. Ben Slimane et al. (2022) propose an integrative approach that synthesizes cross-disciplinary literature, aiming to understand how digitalization enhances business performance by broadening reach and providing innovative customer experiences in recent studies on the effects of digital transformation on SMEs. In this study, the researcher examines the mechanisms of tourism apps and their impact on the digitalization of small businesses, particularly focusing on *asnaf* entrepreneurs in Perlis.

Digital transformation in business is not only a trend but a necessary adaptation. The challenges faced by *asnaf* entrepreneurs in adapting to new technology due to limited resources and knowledge highlight the need for research on how digital technology influences business innovation models (Harun et al., 2024). However, initiatives like "Perlis Go Digital" aim to encourage digital practices among local entrepreneurs to help bridge these gaps. Through this program, Perlis promotes digital business solutions as a path for local businesses to thrive, aligning with government goals for economic modernization and inclusive growth. Prior research highlights the importance of integrated management strategies that support small and medium enterprises (SMEs) and expand access to digital financial services, thereby improving the visibility and sustainability of smaller businesses in the digital landscape (Sudiantini et al., 2023).

In light of the Visit Perlis 2024-2025 campaign, this study aims to assess how tourism apps can support the economy of *asnaf* entrepreneurs in Perlis. The campaign serves as an ideal period for reviewing the role of digital tourism initiatives and gathering insights to guide future efforts. Research reveals that smartphones and mobile applications have significantly altered the tourist experience, encouraging changes in tourist behavior and increasing social interaction, security, and engagement with local services (Dias & Afonso, 2021). By examining the role of tourism apps, this study seeks to evaluate how such platforms can drive business

performance and contribute to economic empowerment for *asnaf* entrepreneurs.

This study employed a qualitative approach to explore the intersection of the proposed tourism apps and the tourist perspectives to understand their experiences, views, and recommendations regarding the use of tourism apps on the sustainable economic of SME and *asnaf* development in Perlis. Previous research indicates that a qualitative research approach is particularly effective in exploring the complex relationship between decision-makers' perceptions of digital technologies and their adoption within micro-enterprises, as it allows for an in-depth understanding of personal, internal, external, and developmental factors that influence decision-making, which may not be fully captured by quantitative studies (Andersson & Tilly, 2024). Through this approach, the researcher aims to provide a comprehensive understanding of the tourist perspectives on the impacts of tourism mobile applications towards the development of SME and *asnaf* businesses in Perlis.

Finally, the findings from this study will be presented to stakeholders, offering insights into ways to further strengthen the digital economy for *asnaf* entrepreneurs in Perlis. By aligning tourism app mechanisms with the unique needs of these entrepreneurs, this study aims to support sustainable business growth and improved economic outcomes in the region. Ultimately, the research will contribute valuable recommendations for developing an effective tourism app strategy that benefits both the tourism sector and local *asnaf* businesses.

2. Literature Review

The Impact of App Development on SME *Asnaf* Economy

The impact of mobile applications on the *asnaf* economy, referring to businesses owned by or supporting individuals in the *asnaf* category, has been significant in driving economic empowerment and fostering social inclusion. In recent years, digital platforms and mobile apps have played a pivotal role in enhancing access to resources, boosting business visibility, and offering training and networking opportunities for *asnaf* entrepreneurs. These apps equip *asnaf* entrepreneurs with essential tools to launch and grow their businesses, including e-commerce platforms, business management solutions, and digital marketing resources. By utilizing these technologies, *asnaf* entrepreneurs can tap into broader markets and compete more effectively. Additionally, apps provide a platform for *asnaf* individuals to sell their products and services, helping them generate income and improve their livelihoods.

According to Meerangani et al. (2022), digital platforms such as social media can influence the entrepreneurial and business segments in a more structured and widespread manner. Thus, the high level of literacy and digital participation among entrepreneurs can significantly affect the competitiveness and improvement of performance and innovation of an enterprise (Olanrewaju et al., 2020). According to Omar et al. (2020), digital technology is a platform that can increase the marketability of a product and innovation on the global level. Meerangani et al. (2022) also stated that the optimal use of social media and digital technology can increase the revenue and productivity of a sale. More than 50 million businesses use business pages on social media platforms such as Facebook and Instagram through direct sales. This strategy has provided encouraging return value as nearly 60 percent of social media users were inclined to follow, subsequently making purchases online (Meerangani et al., 2022).

According to Omar (2023), financial technology such as mobile banking offers many advantages to users, specifically among *asnaf* entrepreneurs. It depends on their technology expertise and spirit for *asnaf* entrepreneurs to overcome the obstacles in the business world. The *asnaf* entrepreneur can use fintech in various ways, such as online banking, e-wallets, Boost, and PayPal. The study found that traditional banking services are difficult to access in rural areas where asnaf entrepreneurs are often located in inadequate physical bank infrastructure (Van Klyton et al., 2021). Thus, respondents said that mobile banking provided a viable alternative with easy access to financial services, and they were able to save time and money (Das, 2019). Given the specific features of rural areas, such as a lack of infrastructure, a scattered population size, and communication obstacles, accessing *asnaf* entrepreneurs can be difficult. However, *asnaf* entrepreneurs can reach customers outside their local region using mobile banking. The number of customers could rise if *asnaf* entrepreneurs are willing to accept digital payments via mobile banking. Following the use of mobile payment systems, *asnaf* entrepreneurs who operate small businesses experienced an increase in earnings (Omar, 2023).

Mobile applications have allowed *asnaf* entrepreneurs to access broader markets by enabling them to sell products and services online. Platforms such as Lazada, Shopee, PG Mall, and others provide low-barrier entry points for small businesses, including those owned by individuals in the *asnaf* group. These apps facilitate the listing, marketing, and sales of goods, thereby increasing the market reach of *asnaf* entrepreneurs who may otherwise struggle with traditional, offline distribution channels. *Asnaf* entrepreneurs can reach a national or even global customer base, significantly boosting sales and profitability. Moreover, many of these platforms offer integrated payment systems, logistics, and marketing tools, which reduce the complexity of setting up an e-commerce business. A study by the ASEAN Digital Economy Report 2023 notes that platforms like Shopee and Lazada have been instrumental in helping small businesses, including those from underprivileged backgrounds, access digital commerce (ASEAN Secretariat, 2023).

The Impact of App Development in the Tourism Sector

Among the business apps, travel applications are the seventh most popular category of most downloaded apps, and 60% of travellers choose to use mobile apps while traveling (Abdul Rashid et al., 2020). They stated that there are six indicators of mass media use influencing the selection of tour destination, namely: the destination of the tour visit, transportation, accommodation, food, and tourism activities such as shopping and leisure activities. Many studies have identified the impact of using mobile applications in smoothening a tour, but on the other hand, there is still a lack in other studies in highlighting the weaknesses and shortcomings of mobile applications in a tour session (Abdul Rashid et al., 2020).

Abdul Rashid et al. (2020) found that the use of mobile applications greatly contributed to the smoothness of their travel. Mobile applications in tourism have become a necessity in the tourism sector. With the availability of mobile applications, all accommodation arrangements, e-banking services, destination location navigation, transportation, including flight tickets, entry tickets to any tourist or recreational destinations can be made online, stated to Abdul Rashid et al. (2020). Transportation bookings around travel destinations can also be booked via mobile applications, destination information is also accessible, and food can also be booked online without having to visit the restaurants (Abdul Rashid et al., 2020).

Recent studies by Razeeth et al. (2023) and Stefanov et al. (2023) highlight that mobile apps enhance tourist satisfaction by providing seamless access to information and services like travel guides, maps, and booking platforms, enabling efficient trip planning. Additionally, research by Benedek and Szöllősi (2022) indicates that the use of mobile apps significantly influences tourists' decision-making processes, increasing the likelihood of them visiting a destination. These apps not only save time but also enhance the overall tourist experience by addressing various information needs instantly, as seen in the study by Kadam and Sen (2023). The evolving role of smartphones in tourism signifies the immense potential of mobile applications in transforming and enriching tourists' interactions with destinations.

Nordin et al. (2023) stated that the mobile tourism application nowadays can be said as the most efficient application that is able to ease travellers' travel. Travel apps help users to research destinations, find good flight and accommodation deals, and book services which can be called m-Travelling. M-Travelling can be defined as the use of applications developed for mobile devices to aim at a person or a group of people during a tour in a place. Thailand, Indonesia, and Singapore have all emphasized the need to put their tourism information into a mobile app rather than a website (Nordin et al., 2023).

Albayrak et al. (2023) examined the quality of mobile travel apps and how application quality and brand trust affect intention to use. They found that perceived usefulness, ease of use, and trust significantly drive app adoption and enhance tourists' booking behaviors. Additionally, Sia et al. (2023) conducted a systematic review of travel apps and highlighted smart features like geolocation services, itinerary personalization, and real-time content. These features enhance user satisfaction and loyalty but face challenges tied to privacy, cost, and infrastructure limitations. Recent research by Song et al. (2024) on mobile Augmented Reality (AR) adoption in tourism reveals that AR apps boost customer engagement and usage behavior, especially when designed with interactivity, vividness, and relevant content. However, adoption remains low in many developing regions due to limited awareness and security concerns.

3. Research Methodology

This study employed a qualitative approach to explore the intersection of the proposed tourism apps and the tourist perspectives to understand their experiences, views, and recommendations regarding the use of tourism apps on the sustainable economic development of SME and *asnaf* development. A semi-structured interview that combined structure and flexibility has been employed in order to allow the researcher to provide guidance on appropriate aspects, and also allow the respondents to elaborate on aspects they perceived to be important. The guided, structured interview is organized into four main sections:
Section A: Experience Using the Application
Section B: Perceptions of the Application's Functionality
Section C: Satisfaction and Suggestions for Improvement
Section D: Effects on Tourist Behaviour and Perception

These four main sections were intentionally structured to offer a comprehensive view of how the application is used, perceived, and impactful on both among users and within the broader local tourism context. The interviews were carried out with nine particularly chosen respondents among the tourists from three major Perlis tourism areas, which are Kangar, Arau, and Padang Besar. In total, there were 9 respondents involved in this study. This sample size is sufficient based on the three major Perlis tourism areas. The distribution of feedback for each section of the interview questions is shown in Table 1.

Table 1: The Distribution of Feedback

Interview questions section	Number of feedback
Section A: Experience Using the Application	12 feedbacks
Section B: Perceptions of the Application's Functionality	12 feedbacks
Section C: Satisfaction and Suggestions for Improvement	11 feedbacks
Section D: Effects on Tourist Behaviour and Perception	8 feedbacks

The researcher used thematic analysis, a widely accepted method in qualitative research for identifying, exploring, and reporting patterns in data. Data was analysed using Atlas. TI version 24 software. The Atlas. ti version 24 was utilized in this context to efficiently organize, code, and analyze qualitative interview data. It enabled the researcher to categorize substantial segments of the interview texts using specific codes, organize those codes into themes, and map connections between concepts. The software made it easier to manage large volumes of text, identify patterns in responses, and ensure a structured and transparent analysis process. By using Atlas. ti, The researcher could efficiently turn raw feedback into meaningful insights about how the tourism application supports *asnaf* businesses in Perlis.

Figure 1: Atlas.ti version 24

The data analysis process began with verbatim transcription of interview audio recordings, then proceeded by coding, which is the labelling of specific data segments with labels that capture their content. These codes were then sorted and categorized into broader themes, which are Application Usage, Benefits, Feedback, Suggested Improvements, and Effects of Usage. The data was coded based on the interview feedback collected by the researcher. Then, the data was analysed according to the codes and themes developed as shown in Figure 2. Themes from each interview response were assigned the same colour codes to ease interpretation. Figure 3 shows the network of themes of the five themes that have been coded with the same colour codes.
Green – Experience Using the Application
Brown – Perceptions of the Application's Functionality
Pink – Satisfaction and Suggestions for Improvement

Red – Effects on Tourist Behaviour and Perception

In Section A: Experience Using the Application, the researcher provides two questions. The first question is "*Boleh ceritakan pengalaman anda menggunakan aplikasi pelancongan untuk merancang lawatan?*" and the second question is *"Mengapa anda memilih untuk menggunakan aplikasi ini berbanding cara tradisional seperti bertanya kepada penduduk atau menggunakan peta bercetak?".* There are 12 feedbacks that have been analyzed and coded based on the common theme from all the nine respondents.

Furthermore, in Section B: Perceptions of the Application's Functionality, the researcher provides three questions. The first question is *"Sejauh mana maklumat yang anda terima melalui aplikasi ini membantu anda? Adakah maklumat tersebut cukup jelas, lengkap, dan boleh dipercayai?"*, the second question is *"Bagaimana pengalaman anda menggunakan pautan ke Waze atau Google Maps melalui aplikasi tersebut? Adakah ia membantu perjalanan anda menjadi lebih mudah?"* and the third question is *"Pada pendapat anda, adakah aplikasi pelancongan seperti ini dapat membantu meningkatkan ekonomi perniagaan tempatan seperti kedai makan, homestay, pemandu pelancong, dan usahawan asnaf? Boleh berikan contoh?".* There are 12 feedbacks that have been analyzed and coded based on the common theme from all the nine respondents.

Besides that, in Section C: Satisfaction and Suggestions for Improvement, the researcher provides two questions. The first question is *"Apakah aspek yang paling anda suka tentang aplikasi ini?"* and the second question is *"Apakah kekurangan yang anda perasan? Apakah cadangan anda untuk memperbaiki aplikasi ini supaya lebih berguna kepada pelancong dan peniaga tempatan?".* There are 11 feedbacks that have been analyzed and coded based on the common theme from all the nine respondents.

In Section D: Effects on Tourist Behaviour and Perception, the researcher provides two questions. The first question is *"Adakah aplikasi ini mempengaruhi keputusan anda untuk memilih lokasi tertentu semasa melancong? Jika ya, bagaimana?"* and the second question is *"Pada pandangan anda, jika penggunaan aplikasi ini membantu meningkatkan ekonomi peniaga asnaf dan komuniti tempatan, adakah ia akan membuatkan anda lebih berminat untuk terus menggunakan aplikasi ini atau melawat lokasi tersebut? Mengapa?".* There are 8 feedbacks that have been analyzed and coded based on the common theme from all the nine respondents.

Figure 2: The Development of Codes and Themes

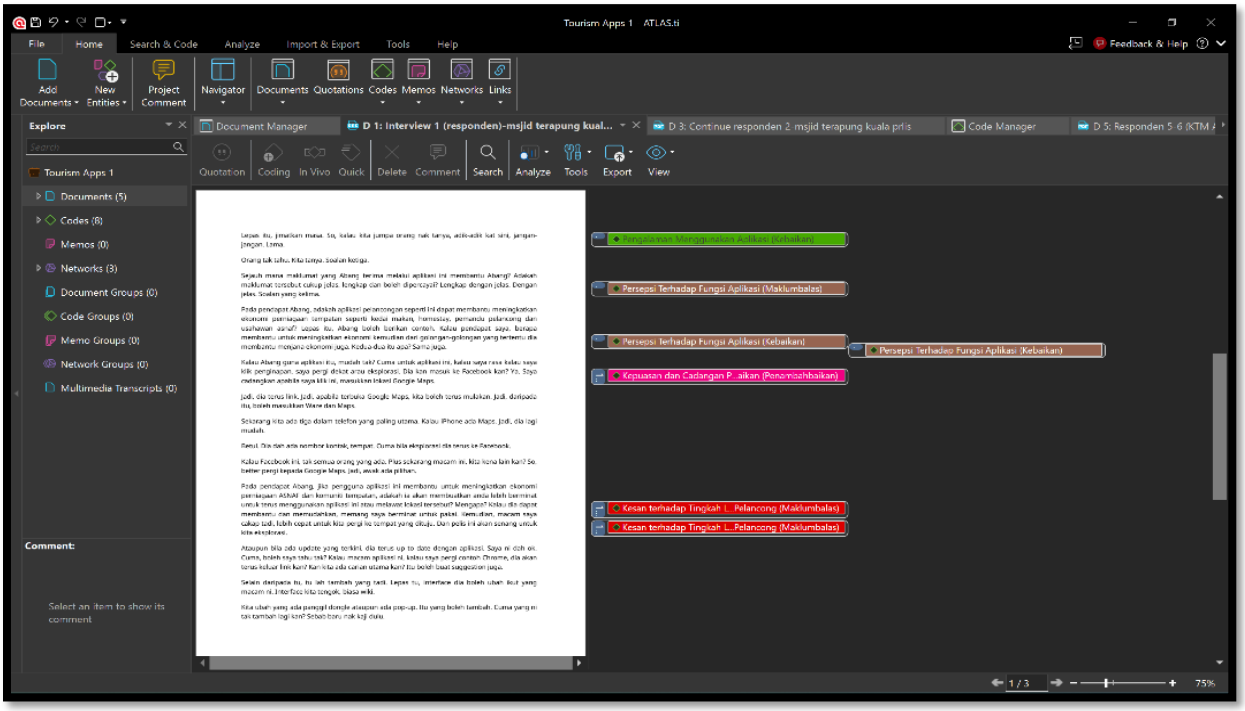
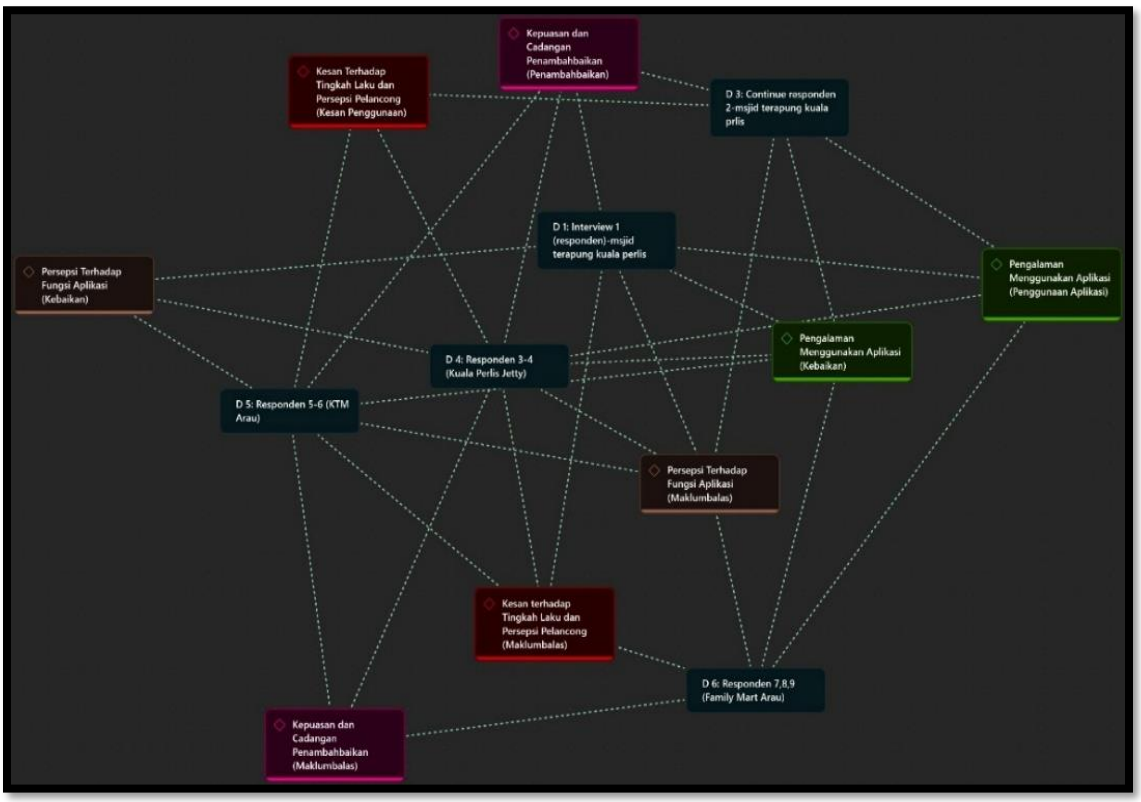


Figure 3: The Network of Themes



4. Results and Discussion

Results

The details of data analysis coding are summarised in Table 2. There are five main themes, which are Application Usage, Benefits, Feedback, Improvements, and Effects of Usage, that can be coded from the interview feedback of the respondents. In Section A: Experience Using the Application, there are two main themes that have been coded, which are Application Usage and Benefits. From the analysis results, it can be seen that most of the respondents are used to using mobile applications during their travel, such as Agoda and Trip.com. In addition, the respondents also mentioned that by using the mobile application, their journey becomes more convenient and can also help them save time.

In Section B: Perceptions of the Application's Functionality, two main themes have been coded. First, the Feedback. In this section, the researcher asked the respondents for their feedback about the functionality of the proposed tourism mobile application. From the interview, most of the respondents agreed that all the information available in the proposed tourism mobile application is clear, complete, and reliable. Second, the Benefits. In this part, the researcher asked the respondents about the benefits of using tourism mobile applications towards the SME *asnaf* economy. Most of the respondents agreed that by using the tourism mobile application, the SME *asnaf* economy can also be developed.

Besides that, in Section C: Satisfaction and Suggestions for Improvement, there are two main themes that have been coded, which are Feedback and Improvements. This section consists of questions that ask about the satisfaction of the proposed tourism mobile application and also the suggested improvements that can be made in order to improve the functionality of the mobile application. Based on the analysis, the respondents agreed that the mobile application provides specific information with pictures, which makes the mobile application more appealing. However, there are a few suggestions for improvements that can be highlighted. First, the respondents suggest that the researcher insert the maps or location of the place into the mobile apps. Second, the respondents also suggest inserting a video and a rating of the place in the mobile apps, so they can have the

initial impression about the place before traveling.

In the last section, which is Section D: Effects on Tourist Behaviour and Perception, there are two themes that have been coded, which are Effects of Usage and Feedback. In this section, the researcher asked about the effects and feedback of using tourism mobile applications towards the development of the SME *asnaf* economy. Most of the respondents agreed that the use of the tourism mobile application can help to improve the economy of SME and *asnaf* entrepreneurs in Perlis. With the existence of this mobile application, it can be one of the alternatives that can be used by the SME *asnaf* entrepreneurs to promote their product worldwide.

Profile of Respondents: Table 1 displays a summary of the characteristics of the total sample of customers or subscribers who participated in the study.

Table 2: Data Analysis of The Interview Feedback

Themes	Subthemes
Section A: Experience Using the Application (2 Themes)	
Application Usage	*"Saya akan guna Google Maps dengan, untuk penginapan, Agoda."* *"Selalunya guna aplikasi Google, Google map, mencari hotel tu guna Google booking."* *"Selalunya kalau datang Perlis ni kalau nak senang, tengok TikTok lah."* *"Saya guna aplikasi seperti Agoda untuk check booking hotel di mana murah, di mana lebih mahal semua."* *"Trip.com ke Agoda. Kalau saya, bila ada aplikasi ini, kita jadi macam, kita punya persiapan kita tu tak kalut."*
Benefits	*"Jimatkan masa."* *"Lagi senang lah kalau nak cari maklumat dan semua tu pakai Google dan semua tu."* *"Saya rasa aplikasi ini adalah aplikasi yang dipercayai."* *"Menurut saya, ini lebih mudah."* *"Tersuai dengan perkembangan teknologi."* *"Mudah lah, lagi mudah untuk pakai internet kan."* *"Macam bila kita ada aplikasi ni, kita macam, kita tak menyusahkan orang lain."*
Section B: Perceptions of the Application's Functionality (2 Themes)	
Feedback	*"Lengkap dengan jelas."* *"Tapi still ada some information tu yang orang kata apa, reliable lah."* *"Still ada information dia boleh percaya."* *"Saya percaya maklumat ni cukup jelas, lengkap dan boleh dipercayai."* *"Tak berapa lengkap bagi saya."* *"Bagi saya, memudahkan lah. Memudahkan lah. Lagi cepat lah kan."* *"Sangat mudah because nowadays orang dah tak kenal jalan tau."* *"Dia bagi kita alternative route yang memang helps us untuk accommodate dengan kita punya plan, travel plan."*
Benefits	*"Membantu untuk meningkatkan ekonomi."* *"Membantu menjana ekonomi juga."* *"Yes, mestinya boleh membantu meningkatkan ekonomi semua tu."* *"Dapat membantu meningkatkan ekonomi perniagaan."*
Section C: Satisfaction and Suggestions for Improvement (2 Themes)	
Feedback	*"Saya paling suka the fact kat dia provide gambar-gambar tempat tu."* *"Jika orang terdekat kita tidak tahu tentang Perlis. Sekurang-kurangnya ada aplikasi ini yang boleh membantu kita. Kita ada aplikasi yang boleh tahu tentang Perlis."* *"Dah bagi contoh-contoh dari segi tempat makan."* *"Dekat aplikasi ni, dia dah spesifik kan."* *"Benda ni bagi maklumat yang jelas lah kat kita."*

Improvements	*"Saya cadangkan apabila saya klik ini, masukkan lokasi Google Maps."* *"Kalau boleh tempat makan terus letak map ke. Ataupun letak view ke."* *"Letak review terbaik tinggi ke."* *"Boleh cuba tambahkan video lagi."* *"Cadangan saya ialah maybe boleh letakkan review juga sekali."* *"Kalau boleh, kita tekan tempat makan tu. Kalau dia bagi direction terus, tak apa."*
Section D: Effects on Tourist Behavior and Perception (2 Themes)	
Effects of Usage	*"So maksudnya akan membantu-bantu juga orang-orang asnaf tu. Menjadi pendapatan lah."* *"Ya, dia membantu saya untuk buat decision dalam saya punya pelancongan sebabnya kalau saya tahu tempat ni macam tak best, saya tak nak nak pergi kan macam bazir masa kan."* *" Quite mudah jugalah. At least tak payah try nasib."*
Feedback	*" Kalau dia dapat membantu dan memudahkan, memang saya berminat untuk pakai."* *"Dan Perlis ini akan senang untuk kita eksplorasi."* *"Bagi saya memang perkara tu akan buat saya lebih ingin menggunakan aplikasi ni sebab saya percaya peniaga-peniaga tempatan semua mereka wajar disokong oleh bukan hanya orang tempatan tapi juga orang luar yang ingin melancong tempat-tempat tersebut."* *"Sebab at least saya tahu dengan kita gunanya aplikasi ni. Kita akan dapat bantu juga."* *"Pada saya, semestinya lah dia macam bila ada benda-benda gini. Sebab dekat sini dia dah ada list dah."*

Discussion

The findings revealed that the majority of respondents reported using popular tourism mobile apps such as Agoda, Trip.com, and Google Booking before their trips, reflecting a high level of familiarity and comfort with digital travel tools. They also strongly agreed that these mobile apps made their journeys smoother, reducing planning effort, enhancing convenience, and saving valuable time. A study conducted by Şeker et al. (2021) with Turkish travellers confirms that the use of tourism apps can be perceived as time-saving**,** money-saving**,** and convenient**.** Similarly, Tan et al. (2025) also reported that smart devices streamline planning, cut waiting times, and facilitate synchronized travel arrangements, with real-time information notably enhancing trip efficiency. These findings also align with previous research by Razeeth et al. (2023) and Stefanov et al. (2023) that highlights the role of mobile technology in improving tourist satisfaction and engagement.

In addition, the respondents overwhelmingly affirmed that tourism mobile apps help stimulate the economy of *asnaf*-led SMEs in Perlis by exposing local entrepreneurs to broader tourist markets via app-based bookings and promotions and facilitating visibility and sales for *asnaf entrepreneurs* offering local products and services. These observations align with Abdul Rahim et al. (2023) findings that *asnaf entrepreneurs* in Perlis have successfully incorporated digital platforms such as social media, websites, and delivery apps into their business models, leading to improved outreach and economic outcomes. Besides that, this finding also aligns with a previous study by Hninn et al. (2025). They used structural equation modelling on Malaysian tourism SMEs to show that digital transformation via mobile tools enhances business resilience, and that value creation mediated the relationship between digital capabilities and resilient operations**,** particularly for smaller tourism firms facing market volatilities. Ditta-Apichai et al. (2020) in their study highlighted that online-mediated tourism platforms connecting tourists with local micro-entrepreneurs (especially in rural areas) foster economic independence, job creation, and community empowerment, critical for sustainable tourism micro-businesses.

5. Limitations and Recommendations

As with all empirical studies, it is essential to acknowledge its limitations. Chief among them is the small sample size (n = 9 tourists), which restricts the generalizability of the findings and may not adequately reflect the broader tourist population. Despite this constraint, this study offers valuable preliminary insights. Future research involving larger, more diverse samples is needed to validate and expand upon these findings.

Second, participant selection was limited to tourists, which may introduce bias and overlook perspectives from other relevant groups. To address this, future research should include respondents from among *asnaf* entrepreneurs to gain a deeper understanding of their perceptions toward the proposed tourism application. Such a study would provide a more comprehensive view of the app's potential impact and usability within this specific community.

Third, his study is based solely on qualitative insights into tourist perceptions, which limits empirical validation of economic outcomes. Therefore, future research should adopt a mixed-methods approach to capture nuanced perspectives while quantitatively examining correlations between the proposed tourism mobile application and *asnaf* economic performance.

Conclusion

This study explored how a proposed tourism mobile app shapes tourists' experiences, perceptions, and its potential to support sustainable economic growth for *asnaf* SMEs. By employing semi-structured interviews, which balanced focused guidance with opportunities for the respondents to elaborate on insights. The guided, structured interview is organized into four main sections. First, Section A: Experience Using the Application**.** The majority of the respondents were already familiar with apps like Agoda and Trip.com, finding them convenient and time-saving. Second, Section B: Perceptions of Functionality. Respondents found the app's information to be clear, reliable, and comprehensive, reinforcing their confidence in its utility and its capacity to stimulate *asnaf* SME growth. Third, Section C: Satisfaction & Improvement Suggestions. High satisfaction was expressed, especially regarding visuals. Respondents suggested improvements such as embedded maps, videos, and user ratings to enrich usability and trust. Lastly, Section D: Behavioral Effects & Tourist Perceptions. The app's role in empowering *asnaf* entrepreneurs was widely recognized, particularly its ability to raise global visibility and provide a platform for SME asnaf product promotion.

These findings align with broader research on smart tourism, which emphasizes integrated digital ecosystems that consist of clear information, real-time updates, and user-centric design in order to enhance tourist experiences and support local economic development. Furthermore, user-centred design frameworks for AR-enhanced tourism apps have demonstrated how iterative feedback loops ensure both usability and stakeholder engagement. Taken together, the thematic and interview findings confirm that tourism mobile applications not only improve traveller experience through efficiency and seamless planning but also act as catalysts for *asnaf* SME economic growth in Perlis. By facilitating global visibility and smoother customer engagement, these digital tools align with established models of app adoption, namely, perceived usefulness, and underscore the broader socio-economic impacts that can be achieved through thoughtful app design and regional development strategies.

In summary, the proposed tourism app meets tourists' demands for convenience and clarity while actively promoting *asnaf* SMEs, encapsulating the dual goals of enhancing traveller experience and fostering economic inclusion. Future work should focus on implementing and evaluating interactive features, for example, maps, media, reviews, and testing their real-world impact on SME visibility, tourist satisfaction, and regional economic resilience.

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