



FACTORS INFLUENCING THE CHOICE OF GLOBAL DISTRIBUTION SYSTEMS (GDSs) BY TRAVEL AGENTS IN NIGERIA

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Abstract

The study investigates the transformative impact of Global Distribution Services (GDS) facilitated by information technology on the tourism industry, focusing on travel agents' adoption of these online platforms in Nigeria. The research involved a survey conducted in Lagos State, Nigeria. For the purpose of this research, 200 questionnaire were administered across selected travel agencies in Lagos state using simple random techniques. The study revealed a notable awareness and preference among travel agents for GDS platforms such as Amadeus and Galileo over alternatives like Wordspan and Sabre. The survey mainly targeted ticketing officers in travel agencies, primarily male individuals with HND/BSC educational backgrounds, and 6-10 years of industry experience, with 1-5 years at their current organizations. Interestingly, many respondents acquired awareness of their chosen GDS platforms through aviation schools and their employing travel agencies, emphasizing the importance of formal training. The selection of a GDS platform was significantly influenced by the respondents' workplace, with incentives and bonuses playing a pivotal role in platform subscription decisions. However, overall, the respondents expressed satisfaction with the services provided by their chosen GDS platforms, underscoring the positive impact of GDS adoption on enhancing communication and service provision within the Nigerian tourism industry.

Keywords: Consumer Choice, Internet, Travel Agents, Global Distribution System, Travel Agencies

INTRODUCTION

The emergence of Information and Communication Technologies (ICTs) has had a profound impact on various aspects of human life, with significant implications for the tourism industry. In the tourism sector, ICTs have led to a transformation in how tourist products are advertised, distributed, and sold. Online channels have become a dominant platform for sales, with hotel reservations being the second-largest source of income after air travel. The tourism industry has recognized the potential of online transactions and has embraced this technological shift to facilitate travel-related sales effectively (Conyette, 2012).

The term Information and Communication Technologies (ICT) has expanded its scope to encompass electronic communication and is widely accepted in scholarly literature (Buhalis, 2004; Gholami, Emrouznejad et al., 2008). ICTs include electronic methods of acquiring, processing, storing, and disseminating information, revolutionizing resource management (Laudon & Laudon, 2017). In the airline industry, ICTs have become deeply

integrated into all levels of operations, driven by the advent of Internet technology and web-based commerce. The influence of ICTs in this industry has become even more pronounced with the introduction of the Internet and open-source technology (Buhalis, 2004). The wide adoption of the Internet by travelers has shifted airlines' distribution strategies, enabling them to offer services directly to end consumers, bypassing traditional channels (European Commission, 2006).

Travel agencies, historically influential in the travel industry, have seen their control diminish with the commercialization of internet technologies. Increased information accessibility, transparency, and the emergence of new online distribution channels have contributed to this shift (Andreassen, 2015). The rapid advancement of technology has introduced both opportunities and challenges to the tourism industry, marked by milestones such as the establishment of the Computer Reservation System (CRS) in the 1960s, the emergence of Global Distribution



Systems (GDS) in the 1980s, and the arrival of the internet in the 1990s (Buhalis & Law, 2008).

ICTs have brought about significant changes in the tourism industry, affecting how products are marketed and distributed. The adoption of online channels and the evolution of technology have reshaped the relationship between businesses and consumers, with profound implications for the entire travel and tourism sector. In view of this, this study is set to examine the available Global Distribution Systems (GDSs) used by travel agencies, assess the level of awareness of the GDSs on the part of the travel agencies and also determine the factors that determine their level of available usage.

LITERATURE REVIEW

Tourism and Information Communication Technology (ICT)

Significant ICT advancements have deeply impacted the global landscape, including the travel industry, altering both supply and demand dynamics (Suhaib, 2020). ICTs have reshaped business ecosystems, influencing demand and value chains, facilitating direct and interactive communication between companies and clients (Xiang et al., 2017). These technologies now serve as vital tools for market intelligence, business transactions, product distribution, and trade networking. In tourism, the unique attributes of heterogeneity, intangibility, and perishability in tourism products set this sector apart, underscoring the importance of information in promoting, describing, distributing, consolidating, organizing, and delivering tourism products. As such, Internet technology has become the bedrock for sustainability, competitive advantage, and strategic innovation (Xiang, 2017).

The growth of tourism and e-commerce has allowed organizations to tap into new customer bases, target niche markets, and seek alternative ways to engage traditional customers. E-marketing is particularly appealing in the tourism industry due to the information-intensive nature of travel products. The internet, as an extensive repository of information, serves as an ideal medium. Unlike tangible consumer goods, the intangible nature of tourism services makes displaying or evaluating them impractical at the point of sale.

The travel industry has witnessed seismic shifts in both supply and demand due to ICT

advancements. The internet has revolutionized travel, introducing airline and hotel direct-booking websites, fostering the rise of online travel agencies (OTAs), integrating search engines, enabling API connectivity, and adopting new distribution capabilities (NDC) (Loureiro, 2016; Gholami 2017 et al.)

In the pre-internet era, especially before the 1990s, intermediaries, including aggregators, consolidators, wholesalers, and travel agencies (TAs), held sway in the travel sector, capitalizing on their exclusive access to information and knowledge (Andreassen, 2015). However, the commercialization of internet technologies has substantially diminished intermediaries' control, thanks to increased information accessibility, heightened transparency, and the emergence of novel online channels for both B2B and B2C transactions (Buhalis and Law, 2008).

Travel Agency

Travel agencies, both offline and online, serve as crucial intermediaries in the complex tourism industry. They connect various travel service providers with consumers, earning commissions from Global Distribution Systems (GDSs) and airlines. These agencies offer advisory services, acting in the best interests of consumers, and act as representatives of service providers, issuing tickets on their behalf.

Today, travel agents continue to play an essential global role, making travel planning more accessible and efficient. They possess valuable knowledge about travel services and are gatekeepers of information in the travel decision-making process (Adeyefa et. al 2018). Their expertise contributes significantly to the development and promotion of tourism by packaging and presenting various attractions and services to tourists.

Travel agencies handle various responsibilities, including ticket booking, document acquisition (e.g., passports and visas), accommodation coordination, and more. They may also assist with travel insurance and foreign currency. Larger agencies have specialized divisions, while smaller ones rely on staff members for multiple tasks. Some agencies focus on specific regions, while others cater to diverse needs, serving as intermediaries between holiday providers, transportation companies, lodging facilities, and clients. There are also dedicated companies



handling corporate travel and event planning (Adeyefa 2018).

Global Distribution System (GDS)

The Global Distribution System (GDS) is a centralized computerized reservation network that consolidates various travel services, allowing travel agents to book flights, hotels, car rentals, and more without establishing separate connections with individual providers (Pan, 2016). Major GDS providers like Amadeus, Galileo, Sabre, and Worldspan act as intermediaries between suppliers and distributors. GDS functions as an "electronic supermarket" connecting buyers and sellers for quick reservations, originating in the 1950s and becoming operational in the 1960s (Das, 2009). It revolutionized travel organization, replacing manual methods and enabling efficient transactions. These systems boast exceptional reliability, handling high volumes and encompassing a vast network of airlines, hotels, tours, and car rental sites.

Over 40 years, GDS has empowered travel agents with various tasks like price checking, booking, billing, and itinerary changes. Some Online Travel Agencies (OTAs) also rely on GDSs, leading to the establishment of their own platforms. However, new models like low-cost carriers and direct-connect business models challenge traditional GDS models, though many travel agents still use GDSs as primary sources for comprehensive travel content (Gholami et al., 2017).

To adapt to industry changes, GDSs have developed APIs and web services for integration into online platforms, introducing new functionalities and technologies (Loureiro, 2016).

Amadeus Global Distribution System

Amadeus GDS is a global distribution system founded in 1987 by European airline entities. It serves the travel and tourism industry, with headquarters in Madrid and an operational hub in Erding, Germany. Amadeus manages over 500 million daily transactions, with an average response time of under 0.3 seconds and a 99.98% system uptime. It operates one of the world's largest civilian computer systems, connecting over 99,000 travel agencies in 195 countries to a vast network of airlines, hotels, car rentals, tour operators, and railway companies (Adeyefa 2018).

Amadeus is a leading information technology service provider for the travel and tourism industry, facilitating efficient reservations, collaborating with airlines for capacity optimization, enhancing hotel sales, expanding network services with car rental companies, providing innovation and training support, and offering commercial and technical assistance to customers. Their product offerings, including Pro Web, Vista, Check my trip, Central Ticketing Solution, and Automatic MCO, empower travel agencies to enhance passenger services, automate processes, improve business operations, and adapt to the dynamic tourism market. One of their recent innovations is E-ticketing, streamlining document issuance and check-in processes for passengers (Amadeus customer IT solution, 2011).

Galileo Global Distribution System

Galileo, a prominent computer reservations system (CRS) currently owned by Travelsport, has its roots in the early 1970s when it emerged from a consortium of nine European airlines, including British Airways, Dutch Airlines, Alitalia, KLM Royal, Swissair, Sabena, Olympic, Air Portugal, and Aer Lingus (Baltimore Sun, 2013). This globally diversified technology leader primarily focuses on providing electronic global distribution services in the travel industry through computerized reservation systems, innovative internet-based solutions, and cutting-edge products. It acts as a centralized source of travel offerings, empowering travel agencies and technology developers to seamlessly integrate Galileo data into their applications via the internet, resulting in streamlined operations and reduced costs.

To compete with market-dominating rivals like Apollo and Sabre GDS owned by American Airlines and United Airlines, Galileo, along with Worldspan, was established as a strategic move to gain prominence in the computer reservation system market and the broader commercial airline industry. This initiative, which included the introduction of an accessible online reservation system, significantly improved the efficiency of travel businesses. Galileo GDS, with features such as advanced search, flight scheduling, hotel and car rental information, and streamlined booking processes, played a pivotal role in modernizing the travel industry (Galileo).

Sabre Global Distribution System

Sabre GDS stands out as a prominent travel technology service provider in India, delivering



comprehensive Sabre GDS Integration Solutions tailored to airlines, hotels, travel agencies, and travel companies. The inception of Sabre dates back to 1960 when it emerged from a collaborative endeavor between American Airlines and IBM, resulting in the creation of the world's inaugural computerized reservation system. Sabre Corporation, often referred to as a travel technology company, is headquartered in Southlake, Texas. It holds the distinction of being the largest global distribution systems provider for air bookings within North America and maintains its status as a leading contender. With a vast network encompassing 60,000 travel agencies, 400 airlines, 55,000 hotels, 52 car rental companies, 9 cruise lines, 33 railroads, and 229 tour operators across 45 countries, Sabre's influence is far-reaching (Das 2009). What sets Sabre apart is its commitment to technological advancements and innovative research, differentiating it from other Global Distribution System entities. Its product portfolio extends beyond travel commerce to enhance airline and supplier operational capabilities. Notably, Sabre boasts a strong marketing position, a global presence, a diverse range of products, and revenue streams from various business sectors. Of particular significance is its "intellectual capital," derived from its comprehensive suite of information technology business services. With a track record of revenue growth, Sabre emerges as a formidable competitor due to its compelling competitive advantage in providing extensive services to businesses (Das 2009).

Worldspan Global Distribution System

Worldspan GDS was established in the early 1990s by Delta Air Lines, Northwest Airlines, and Trans World Airlines (TWA) with the purpose of offering its services to global travel agencies. Presently, the majority owner of this GDS is Delta Air Lines, Inc., holding a 40% stake (Das 2009). Over time, Worldspan's scope has expanded to encompass various travel services, and it is currently a component of Travelport. The company has experienced substantial growth in the domain of web-based travel distribution, spanning across 90 countries and territories. It boasts a network that encompasses 20,021 travel agencies, 421 airlines, 210 hotel companies, 40 car rental companies, 39 tour and vacation companies, as well as 44 specialized travel service suppliers (Das 2009). Worldspan has been actively engaging in strategic initiatives to augment its network's size and breadth.

Collaborative partnerships have played a pivotal role in enhancing its competitive standing in the e-commerce sector, particularly against the other major players. Recent affiliations include alliances with Datalex, a provider of business frameworks and services for global travel companies; Digital Travel for global online tour solutions; Kinetics Inc., a creator of diverse products and technologies for airline companies; OpenTable.com for restaurant search and reservation tools; and Viator, a provider of web-based services including data management, web hosting, and general e-commerce (Das 2009).

Furthermore, in 2001, Worldspan forged a partnership with Orbitz LLC, utilizing Worldspan as a booking engine. The introduction of Worldspan ePricingSM in 2002 brought forth innovative technology that streamlined the search for the best prices, surpassing the efficiency of similar offerings by other companies.

METHODOLOGY

The research methodology for this study is survey research. Data for the study were collected from primary and secondary sources; this was carried out through questionnaires administration.

Study Area

The study area encompasses Lagos Island, Lagos State. Lagos Island Local Government is bordered by the Atlantic Ocean to the south, the Lagos Lagoon and Mainland Local Government area to the north, Majidun Creeks to the east, and Apapa Local Government Area to the west. It is characterized by its low altitude, with the highest point being less than 15 meters above sea level, sloping toward surrounding lagoons and creeks. Originally known as "Eko," Lagos Island was established as a fishing settlement around 1450 by the Aworis, a Yoruba sub-ethnic group. Its historical, cultural, and geographic significance, along with European influence, contributed to its growth as the commercial and business hub of Nigeria.

Sampling Techniques

The study comprised of some members of staff in twenty (20) selected travel agencies in Lagos Island, Lagos state and Two hundred (200) questionnaires were administered to the respondents in the selected travel agencies.

SAMPLING METHOD

A simple random sampling method was employed during to selected staff of travel agencies. This approach ensured that our sample was representative and free from bias, allowing us to gather comprehensive insights for our study.

Method of Data Analysis

Data collection involved the administration of questionnaires, followed by coding and analysis using the Statistical Package for Social Science (SPSS). The analysis utilized descriptive statistical methods, including percentages and frequency distributions.

RESULTS AND DISCUSSION

Table 1: Demographic Characteristics of Respondents

S/N	Variable	Grouping	Frequency (N=200)	Percentage (100%)
1.	Gender	Male	116	58.0
		Female	84	42.0
2	Marital Status	Single	113	56.5
		Married	87	43.5
3	Age	20 – 29	89	44.5
		30-39	99	49.5
		40-49	12	6.0
4	Religion	Christian	108	54.0
		Muslim	92	46.0
5	Educational Background	OND/NCE	41	20.5
		BSC/HND	154	77.0
		PG	5	2.5
6	Years of Experience	1-5 years	111	55.5
		6-10 years	74	37.0
		10 years and above	15	7.5
7	Years of Work with current Travel Agency	Less than a year	44	22.0
		1-5 years	99	49.5
		6-10 years	57	28.5
TOTAL			200	100.0

Source: Author's Compilation, 2023

Table 1 reveals the following key findings: 116(58.0%) respondents were male, 84(42.0%) were female. In terms of marital status, 113(56.5%) were single, and 87(43.5%) were married. Regarding age groups, 89(44.5%) were aged 20-29, 99(49.5%) were aged 30-39, and 12(6.0%) were aged 40-49. In terms of religion, 108(54.0%) identified as Christian, and 92(46.0%) as Muslim. In educational background, 41(20.5%) had OND/NCE, 154(77.0%) had BSC/HND, and 5(2.5%) had Post Graduates. Work experience showed that 111(55.5%) had 1-5 years, 74(37.0%) had 6-10

years, and 15(7.5%) had over 10 years. Finally, regarding their tenure with the travel agency, 44(22.0%) had worked for less than a year, 99(49.5%) for 1-5 years, and 57(28.5%) for 6-10 years.

When examining the age distribution of respondents, it became apparent that the largest group fell within the 30-39 age range, indicating a higher inclination toward adopting online platforms for travel agency operations within this demographic, and the majority held a BSC/HND degree, indicating a higher level of education.

Objective 1: To examine the available Global Distribution System used by travel agencies

Table 2: What are the available GDSs you know?

	Frequency	Percentage
Galileo	40	20.0
Amadeus	56	28.0
Galileo, Amadeus, and Sabre	23	11.5
Galileo, Amadeus, Sabre, and Word Spam	18	9.0
Amadeus and Galileo	63	31.5
Total	200	100.0

Source: Author's Compilation, 2023

Table 2 indicates that 40(20.0%) respondents are aware of Galileo as the sole GDS for ticket reservations, 56(28.0%) are aware of Amadeus alone, 23(11.5%) are familiar with Galileo,

Amadeus, and Sabre, 18(9.0%) know Galileo, Amadeus, Sabre, and Worldspan, while 63(31.5%) only recognize Amadeus and Galileo as the available GDS options.

Table 3: Which of the available GDSs can you use?

	Frequency	Percentage
Galileo	17	8.5
Amadeus	162	81.0
Amadeus and Galileo	21	10.5
Total	200	100.0

Source: Author's Compilation, 2023

The table 3 indicates that 17(8.5%) of the respondents can only make use of Galileo, 162(81.0%) can only make use of Amadeus, and

21(10.5%) of the respondents can only make use of both Amadeus and Galileo.

Table 4: Which of the GDSs is your travel agency currently using?

	Frequency	Percentage
Galileo	18	9.0
Amadeus	162	81.0
Amadeus and Galileo	20	10.0
Total	200	100.0

Source: Author's Compilation, 2023

Table 4 shows that 18(9.0%) of the respondents' travel agencies only make use of Galileo GDS, 162(81.0%) make use of Amadeus, and,

20(10.0%) of the respondents' travel agencies make use of both Amadeus and Galileo.

Table 5: How long has your travel agency been using this GDS?

	Frequency	Percentage
1-5 years	25	12.5
6-10 years	54	27.0
11-15 years	121	60.5
Total	200	100.0

Source: Author's Compilation, 2023

Table 5 reveals that 25(12.5%) of the respondents' travel agencies have been using a specific GDS within the last 1-5 years, 54(27.0%)

within 6-10 years, and, 121(60.5%) of the respondents' travel agency has been using the said GDS within the last 11-15 years.

Table 6: Are you aware that there are other available GDS aside from the one you mentioned?

	Frequency	Percentage
Yes	166	83.0
No	34	17.0
Total	200	100.0

Source: Author's Compilation, 2023

Table 6 indicates that 166(83.0%) of the respondents were aware that other GDS exist aside from the one they know or used by their travel agency while 34(17.0%) of the respondents were not aware of the existence of other GDS aside

from the one they know or used by their travel agency. The research revealed that a significant number of respondents were aware of various GDS platforms used by travel agencies, even if their own agency did not utilize them.

Objective 2: To assess the level of awareness of the GDS on the part of the travel agencies.

Table 7: How did you get to know about the available GDS you are using currently?

	Frequency	Percentage
Work	78	39.0
Friends	9	4.5
Aviation Schools	84	42.0
Internet	29	14.5
Total	200	100.0

Source: Author's Compilation, 2023

Table 7 indicates that 78(39.0%) of the respondents got to know about the available GDS from their place of work, 9 (4.5%) got to know from friends, 84 (42.0%) got to know from aviation

schools while the remaining 29 (14.5%) got to know about the available GDS through the internet.

Table 8: How long has your agency been in business?

	Frequency	Percentage
1-5 years	25	12.5
6-10 years	54	27.0
11-15 years	121	60.5
Total	200	100.0

Source: Author's Compilation, 2023

Table 8 shows that 25(12.5%) of the respondents' travel agencies have been in business within 1-5 years, 54(27.0%) within 6-10 years, and

121(60.5%) of the respondents have been in the travel business in the last 11-15 years.

Table 9: Have you or co-staff received formal training on how to use the GDS used by your agency?

	Frequency	Percentage
Yes	136	68.0
No	62	31.0
Maybe	2	1.0
Total	200	100.0

Source: Author's Compilation, 2023

Table 9 indicates that 136(68.0%) of the respondents and other members of their travel agency staff received formal training on how to make use of the GDS used by their agency, 62(31.0%) did not receive any formal training while 2(1.0%) were not sure.

However, in line with the second objectives, the study found that a majority of the travel agencies surveyed fell into the category of 11-15 years in operation, indicating that they had surpassed the initial challenging phase typically experienced within the first 3-5 years of establishing a business.

Objective 3: To determine the factors that determine the usages of GDSs

Table 10: Do you think the available GDSs used in your agency is easier to compare to other GDSs you know?

	Frequency	Percentage
Yes	149	74.5
No	27	13.5
Maybe	24	12.0
Total	200	100.0

Source: Author's Compilation, 2023

Table 10 shows that 149(74.5%) of the respondents are of the opinion that the GDSs used by their travel agency is easier to use

compared to other GDS they know, 27(13.5%) believed it is not, and 24(12.0%) were not sure.

Table 11: Does the travel agency you are working with influence the GDS used?

	Frequency	Percentage
Yes	117	58.5
No	54	27.0
Maybe	29	14.5
Total	200	100.0

Source: Author's Compilation, 2023

Table 11 shows that 117(58.5%) of the respondents' use of GDS is influenced by the agency they are working for, 54(27.0%) of the

respondents said no while 29(14.5%) of the respondents were not certain.

Table 12: Do you think the GDS used by your agency is cheaper compared to other GDSs?

	Frequency	Percentage
Yes	116	58.0
No	45	22.5
Maybe	39	19.5
Total	200	100.0

Source: Author's Compilation, 2023

Table 12 shows that 116(58.0%) of the respondents believed that the price of the GDSs used by their agency is cheaper than other

available GDSs, 45(22.5%) disagreed with the claim, and 39(19.5%) of the respondents were uncertain.

Table 13: Does access to incentives and bonuses influence your agency's choice of GDSs?

	Frequency	Percentage
Yes	123	61.5
No	64	32.0
Maybe	13	6.5
Total	200	100.0

Source: Author's Compilation, 2023

Table 13 shows that 123(61.5%) of the respondents were of the opinion that access to incentives and bonus influences the use of the GDSs used by their travel agency, 64(32.0%) disagreed, while 13(6.5%) were not certain.

respondents believed the GDS used by their agency was easier and cheaper to use compared to other options. They also expressed that their agency's influence played a role in determining the GDS they utilized. Furthermore, respondents mentioned selecting a particular GDS over others due to the incentives and bonuses offered by the platform to their agency and users.

Moving on to the third objective, the study explored the factors determining the usage of GDS platforms. The findings indicated that most



CONCLUSION AND RECOMMENDATION

The study shows that there are numerous factors that influence the use of online platforms, particularly Global Distribution Systems (GDSs), by travel agencies, reshaping the industry. Technological advancements are a primary driver, necessitating online platforms for efficient travel services like bookings and enhancing agency productivity. Cost considerations also play a pivotal role, as GDS adoption reduces operational expenses and allows agencies to secure better deals, bolstering profitability.

In summary, beyond the established players, Amadeus and Galileo, it is imperative for other Global Distribution System (GDS) platforms to actively raise awareness among travel agencies. Utilizing marketing initiatives and targeted campaigns can effectively highlight the distinctive features and advantages offered by these alternative GDS platforms. To entice travel agencies into exploring and adopting diverse GDS platforms, offering incentives such as discounted rates, exclusive deals, or additional training and support is crucial. Additionally, travel agencies should take a proactive stance by investing in comprehensive training programs to educate their staff about the functionalities and capabilities of various GDS platforms, thereby fostering a more balanced utilization and enriching the collective knowledge within these agencies. GDS providers, recognizing their pivotal role, can contribute significantly by providing training resources, organizing workshops, or offering online tutorials to ensure that travel agencies gain a thorough understanding of their platforms.

Furthermore, there is a need for GDS providers like Amadeus and Galileo to prioritize enhancing their user interfaces, making them more intuitive and user-friendly. These improvements, including streamlining workflows, simplifying navigation, and presenting information more clearly, are essential for a seamless and efficient interaction between travel agencies and GDS platforms.

Study Policy Implication

This study highlights policy implications centered on directing policymakers' attention towards technological infrastructure development for the efficient use of online platforms, specifically Global Distribution Systems (GDSs), by travel agencies. This emphasis underscores the necessity for investments in robust internet

connectivity and the promotion of digital literacy to ensure widespread access. Governments are encouraged to consider incentive programs for GDS adoption by travel agencies. These incentives, including tax benefits, subsidies, or grants, aim to mitigate the financial burden associated with transitioning to alternative GDS providers. Crucial policy considerations involve the establishment and maintenance of regulatory frameworks that support fair competition among GDS providers. Policymakers should ensure that established players, such as Amadeus and Galileo, do not engage in anti-competitive practices, fostering a level playing field for new entrants and promoting a healthy market environment.

Research Limitation and Suggested Area of Study

Research limitations identified in the study include regional specificity, necessitating future research to explore similar dynamics in different geographical locations for a comprehensive understanding acknowledging the dynamic nature of technological advancements and industry trends, continuous research is vital to stay abreast of developments. While the study primarily focuses on the perspectives of travel agencies, it highlights a limitation in considering industry stakeholder perspectives. Future research should incorporate viewpoints from GDS providers, policymakers, and consumers for a more holistic understanding of factors influencing the GDS landscape.

Suggested areas of study include investigating the influence of consumer behavior on GDS adoption by travel agencies, offering insights into the factors driving adoption. Additionally, exploring the impact of GDS adoption on small and medium-sized travel agencies in terms of competitiveness, market share, and overall sustainability is crucial for formulating policies supporting the growth of SMEs in the travel industry.

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