Digital Disinformation Effect on Hotels Customer Response: An Overview and Future Research Directions

Mohamed Ahmed Nassar¹, *Mostafa Abdelaziz Elsaqqa², *Sherif Medhat Hagras³

¹ Professor of Hospitality Management, Faculty of Tourism and Hotel Management, Alexandria University

² Lecturer in Hospitality Management, Faculty of Tourism and Hotels, Alexandria University

³ Teaching Assistant of Hospitality Management, Faculty of Tourism and Hotel Management, Pharos University in Alexandria, Egypt

Abstract

The rapid proliferation of digital disinformation represents a critical issue facing consumers and industries such as hospitality. Various forms of fabricated multimedia content and fake narratives can permeate online spaces and sway customer decision-making. This article explores the potential effects of exposure to digital disinformation, including fake news, deepfakes, and misleading advertisements, on hotel booking intentions. It outlines existing perspectives on disinformation typologies and tactics for manipulating information in the digital sphere. The discussion synthesizes key theoretical frameworks concerning media richness and information manipulation that may explain consumer responses. While academic research on these complex dynamics in the hotel sector remains sparse, this article highlights crucial areas for further empirical investigation. It concludes by proposing important implications for both customers and hospitality practitioners in navigating today's disinformation landscape to make informed decisions and policies. More scholarly attention to digital disinformation and its impacts can offer timely insights into emerging risks for industry and consumers.

Keywords: Disinformation, Fake news, Deepfakes, Misleading advertisements, Hotel Booking intentions, Media Literacy

1. Introduction

In today's world, where technology is advancing rapidly and life is moving at a fast pace, the spread of false information is a cause for concern. With the availability of media production tools and artificial intelligence resources, people and organizations can easily share incorrect or misleading information through various media platforms like social media, news websites, and videos platforms. This flood of false information creates confusion and uncertainty for consumers, making it harder for them to make informed decisions about buying products or services. To overcome these challenges, it is important to conduct a meticulous scientific investigation to understand these phenomena.

Every day, an average person encounters anywhere from 6,000 to 10,000 ads (Carr, 2021). They are multimedia that takes the form...
of vivid photos, captivating videos, compelling text, or often, a medley of these elements. These types of multimedia may contain disinformation whose primary purpose is financial profit regardless of their negative impact on customer decision-making. In the context of the hotel industry, by the end of this year, 2023, an estimated 700 million guests are projected to make their hotel reservations online (Williams, 2023). This has led to an escalation of studies in the field of disinformation through various digital platforms and the need to search for this phenomenon to reduce its negative impact on customers.

Disinformation refers to false information that is intentionally created and shared to mislead (Kapantai et al., 2021) this type of information has an argument in the scientific society on its typologies. Kapantai et al. (2021) in their systematic review proposed a unified taxonomical framework for such phenomena. They proposed several forms of disinformation such as fake news, clickbait, deepfakes, conspiracy theories, fabrication, misleading connection, hoaxes, biased or one-sided imposters, pseudoscience, Rumors, fake reviews, and trolling. In this research, this research focusses mainly on fake news genres, misleading ads, and deepfake video advertisements due to a lack of studies in this domain, extreme overlap, and ill definitions in the context of the hotel sector.

The prevalence of fake news as a type of misinformation and disinformation impacts the hotel industry is highlighted (Vasist & Krishnan, 2022) . Various categorizations of fake news have been provided in the literature (Aimeur et al., 2023) as clickbait, rumors, propaganda, hoax, satire, deepfakes (Hage et al., 2021) these categories are extremely harmful to brands credibility and truthfulness in different industries (Visentin et al., 2019) therefore, hotels like other industries who deal with these genres of fake news in a form of a various multimedia on different digital platforms so, they can be influenced by disinformation through fake news.

Upon reviewing the literature concerning the consequences of fake news as a form of disinformation within the hotel sector, this reviewing identified several studies concentrating on the following key themes. First there were studies focused on the effects of fake news on food-related beliefs, trends, and misconceptions (Visentin et al., 2019) (Bezbaruah et al., 2022; Deng & Hu, 2019; Wang, 2021). Additionally, some studies have explored fake news impact on health scares and their implications for hotels and restaurants such Peco-Torres et al. (2021) study that emphasized the significance of information literacy self-efficacy among travelers, which enables them to accurately discern the authenticity of the information concerning their travel requirements, as well as dismiss fake news related to health concerns. This, in turn, positively influences their perception of hotel safety. Nevertheless, the review of the literature revealed a notable absence of research specifically addressing the impact of fake news on hotel booking intention and the incentives behind such news.

As a form of disinformation one of the most important factors in hotel business competition is the use of advertising media to promote the hotel. Sometimes the advertisement utilized by a hotel's Marketing Department to promote the hotel misleads the user or consumer (Tanggahma & Mofu, 2023) In January 2020 Trivago, a global hotel booking company, has been fined AUD 44.7 million ($32.9 million) by the Federal Court of Australia for misleading customers with advertisements claiming it made it easy to find “the best price” for hotel rooms. Consumers were deceived into booking more expensive hotel rooms which are estimated to be around AUD 30 million ($22 million) and these revenues go to the pocket of Trivago. That type of deception through disinformation is nowadays a deep concern in the context of the hotel industry and needs more investigation to eliminate its impact on hotel customers (Janda, 2022).

Misleading advertisements fall under the umbrella of disinformation. As stated by the European Commission (Hasan & Salah, 2019),
misleading advertising is a profitable practice that involves presenting false information, lying, deceiving, or manipulating customers to persuade them to purchase something they would not have otherwise. Advertising is one of the most widespread methods of communicating with potential customers about a product (Kariyawasam & Wigley, 2017). Misleading advertisements in the context of the hotel industry can take many forms such as false promises utilized in advertising which are impossible to fulfill, for example, some hotels don’t have a view of the sea despite they claim that in their advertisements. Bait-and-switch offers as advertising a lower-priced item that is out of stock to transferring the buyer to a more expensive one, visual distortions which refer to making the advertised goods or service appear larger, more colorful, and more appealing than it actually is such extrema photo manipulation of hotel rooms to make it larger (Tanggahma & Mofu, 2023).

Digital communication possesses the potential to shape customer expectations and attitudes toward hotels (Fedeli, 2020) technology presents both benefits and drawbacks (Kwok & Koh, 2021; Tuomi, 2021). This form of disinformation has not been explored within the hotel sector. This type of deception is particularly concerning for the industry due to its possible impact on hotel image and branding. Deepfake video advertisements can effectively attract customers, serving as a powerful tool for digital communication and marketing. However, they also hold the potential to deceive buyers, clients, businesses, and the public by presenting manipulated false information as genuine content (Kietzmann et al., 2020). According to Campbell et al. (2022) deepfakes will revolutionize advertising due to their believability, accessibility, and distinctiveness. The primary reason for deepfakes efficacy is their striking realism, which can significantly influence customer intentions and decision-making processes regarding services and products (Granot et al., 2018; Porter & Kennedy, 2012).

This research primarily concentrates on specific media types, namely fake news, deepfake advertisements, and misleading advertisements, all of which belong to the realm of disinformation. The rationale for selecting these media forms as the focus of this research lies in the limited literature available on fake news, deepfake video advertisements, misleading advertisements within the context of the hotel sector (Vasist & Krishnan, 2022). Additionally, there is a noticeable gap in the literature concerning deepfake video advertising within the hotel sector context, and its implications remain unclear (Sivathanu & Pillai, 2022). As a result, this research aims to measure the influence of disinformation transmitted through media channels, including different forms of fake news, deepfake video advertisements, and misleading advertisements, on customers' intentions to book hotels. Additionally, the research seeks to investigate how the level of media literacy among customers moderates the relationship between these disinformation forms and hotel booking intention.

2. Literature Review

2.1 Disinformation Typologies

The dissemination of false or incorrect information has been a constant in human societies almost since their inception, where facts often get intertwined with partial or complete falsehoods, resulting in what Rojecki and Meraz (2014) call factitious informational blends. The key difference today lies in the speed and extent to which this information disorder can spread (Niklewicz, 2017), amplified by the scale, intricacy, and overabundance of communication (Blumler, 2015). Disinformation refers to false information that is created to deliberately mislead (Aimeur et al., 2023). Digital platforms, particularly social media, facilitate the swift circulation of misinformation across decentralized and distributed networks (Benkler et al., 2018). Often, the intent behind such a spread is malicious, intended to bolster pre-existing beliefs, potentially causing harmful societal impacts. This accelerated and dynamic informational landscape ushers in a
new age of information dissemination as Bennett and Pfetsch (2018) suggest, this necessitates a reconceptualization of research frameworks to account for the influences of social media and digital networks.

Many typologies of disinformation had an argument between researchers (Molina et al., 2021; Tandoc et al., 2018). Kapantai et al. (2021) proposed a unified typology framework for disinformation which encounter fake news, clickbait, deepfakes, conspiracy theories, fabrication, misleading connection, hoaxes, Rumors, fake reviews, and trolling. In the context of the hotel industry, few studies discussed some genres of fake news such as rumors (Choi & Seo, 2021) study which encounters how customers respond to brand rumors in the hotel industry. There are also lack of studies about clickbait ads as a source of disinformation and its negative influence on customers in the context of hotel industry (Soomro et al., 2021). Based on the literature reviews it was found that is a shortage of studies about other forms of disinformation in the context of the hotel industry.

2.2 Disinformation Through Fake News
The definition of fake news has sparked considerable debate in the literature, as numerous researchers have proposed various interpretations and typologies to accurately describe this phenomenon (Tandoc et al., 2018). The emergence of digital platforms and the blending of traditional journalism with citizen journalism have made it increasingly important to establish a comprehensive and precise definition of fake news (Zhang et al., 2021). Fake news is defined as any type of false story or news that is primarily published and spread on the Internet to intentionally mislead, deceive, or entice readers for financial, political, or other advantages (Zhang & Ghorbani, 2020). Although many definitions of fake news have been proposed in the literature by researchers such as (Allcott & Gentzkow, 2017; Ashiru et al., 2022; Rini, 2017) but the definition specifically tailored to the context of the hotel industry remains elusive. This gap in literature highlights the need for further investigation into the phenomenon of fake news within the hotel sector.

According to (Talwar et al., 2019) and (Kumar et al., 2021) The propensity of believing and acting on fake news is when individuals have a natural inclination to avoid and distrust a brand when exposed to fake news about it (Tandoc et al., 2018) propose a typology of fake news that encompasses various forms, including news satire, news parody, fabrication, manipulation, advertising, and propaganda. Scholars have observed that online fake news tends to focus on brands offering essential products and services, such as those in the food and health industries (de Regt et al., 2020) It often builds false narratives, accusing these brands of false claims that will ultimately affect customers’ intentions and purchasing behaviors. Similarly, this will affect the hotel sector, which is intertwined with many industries at risk of fake news.

Aimeur et al. (2023) distinguish two major categories of fake news (i.e., intention or content). According to researchers of this category (Fraga-Lamas & Fernández-Caramés, 2020; Hasan & Salah, 2019) The content category of fake news may include false text such as hyperlinks or embedded content; multimedia such as false videos, images, audio (Masciari et al., 2020). Moreover, there is also multimodal content which is fake news articles and posts composed of multiple types of data combined, for example, a fabricated image along with a text related to the image (Cheng et al., 2021). In this category of fake news forms, there are also deepfake videos (Campbell et al., 2022) and GAN-generated fake images, which are artificial intelligence-based machine-generated fake content that is hard for unsophisticated social network users to identify. Intent-based forms of fake news according to researchers in this category include clickbait, hoax, rumor, satire, propaganda, framing, conspiracy theories, and others.

2.3 Deepfakes and Perceived Media Richness
Deepfakes, as suggested by their name, utilize a method of machine learning known as deep learning. This technique is employed to instruct
deep neural networks (DNNs) to generate counterfeit material. DNNs, mimicking the architecture and communication methods of organic brains, can be programmed to seamlessly blend, fuse, substitute, and overlay images, sound, and video onto a designated video, creating a highly convincing yet fabricated substitute content (Kietzmann et al., 2020; Maras & Alexandrou, 2018). Deepfakes can be created automatically, without the need for the high skills of a human. The tools used to create such videos are now available for non-professionals and professionals, these tools give the opportunity to marketers to create a marketing campaign video with reduced costs as they can substitute any object in a given video shot with anything they choose even with a famous character after having the license to use their photos. This opens endless possibilities for creating advertisements with any object or character (Ashiru et al., 2022; Frank, 2022).

According to Tseng et al. (2017) media richness (MR) refers to the relative capacity of a communication channel to convey a message that contains rich information. MR has four aspects: the number of information channels used for communication, personalized messaging for the recipient, instant feedback provided by the media, and multilingual communication per user requirement (Ogara et al., 2014). The perceived MR of online marketing channels varies among consumers (Lipowski & Bondos, 2018) and it has been found that perceived MR is a predictor of consumer behavior (Kumar et al., 2021). Video marketing research in hotel industry has also shown the impact of MR on consumer behavior (Alamäki et al., 2019).

In line with the concept of media richness deepfakes achieves that kind of media richness and it is defined as fake content that utilizes a machine learning technique called deep learning. This involves training deep neural networks (DNNs), which are artificial networks inspired by the structure and communication processes of biological brains. DNNs can be trained to merge, combine, replace, and superimpose images, audio, and video over a targeted video to create a hyper-realistic, yet fake, alternative content(Kietzmann et al., 2020; Maras & Alexandrou, 2018).

Deepfakes, created using artificial intelligence and machine learning technology, combine different images, videos, and audios to produce convincing imagery that provides information about hotels, including directing customers to booking links and personalized offers. Customers seeking a hotel may feel more inclined to book a hotel after watching deepfake hotel videos. Therefore, there is a need to assess the impact of deepfake video advertisement with more investigation within its relationship with other types of information manipulations tactics that eventually affect the customers intentional behaviors (Sivathanu & Pillai, 2022).

2.4 Perceived Deception

Deception is a common strategy used in advertising communication (Riquelme & Román, 2014). The degree to which consumers feel that advertising communication is deceptive is known as perceived deception (Lutzke et al., 2019). Customers may also believe that marketers manipulate product and service-related information and presentation to ensure favorable changes in the consumer's decision-making process, which is referred to as perceived manipulation. This manipulation may mislead consumers into purchasing a product based on misleading information (Peng et al., 2016). Perceived deception toward the advertisement can create a negative image of the product in the consumer's mind (Lim et al., 2020) thereby affecting loyalty. Specifically, the detrimental effect on loyalty was more pronounced among consumers who purchased tangible goods as opposed to services, held a more favorable perception of the Internet, and possessed higher levels of education.

In the context represented industry perceived deception can represented in a form misleading visual such manipulated photos on hotel websites which classified as a form of deceptive practices that influence booking intentions and cultivate unrealistic expectations regarding the physical ambiance of the hotel (Kuo et al.,
Misleading offers which contain hidden fees is also a form of deception practices which affect customer behavioral intentions (Sharma et al., 2022). These practices become very tricky and hard to expose due to the massive advancement in photo manipulation software that integrated with artificial intelligence and raises the challenge on customers and markets to expose it (Campbell et al., 2022). Perceived deception is defined as the degree to which customers perceive that deepfakes overstate and manipulate hotel information and offerings to attract customers and instigate them to book the hotel. Advertisers may use deepfakes to offer unique hotel features that seem real and credible, which can misguide customers about the hotel's information (Kietzmann et al., 2020).

2.5 Information Manipulation Tactics in Advertisements
Misleading advertisements are a type of disinformation, as classified by the European Commission (Hasan & Salah, 2019). This deceptive practice, which can be lucrative, involves the use of dishonesty, deceit, or manipulation to convince consumers to buy a product or service they wouldn't normally choose. In the hotel industry, misleading advertisements can manifest in various ways. These can include unattainable promises used in promotional materials, such as a hotel falsely claiming all rooms have sea views. Another tactic is the bait-and-switch, where a cheaper product is advertised but is unavailable, leading the customer towards a pricier option such as directing the customer to a higher rate room arguing that there are no other rooms available. Furthermore, visual misrepresentations, where the advertised product or service is made to look larger, more vibrant, or more attractive than it truly is, can also be employed. For instance, hotel rooms' images might be excessively manipulated to appear larger (Tanggahma & Mofu, 2023).

Information manipulation tactics refer to how marketers manipulate information about products or services (McCornack et al., 2014). Marketers use multiple IM tactics such as deleting, adding, modifying, and incentivizing content while creating advertising and marketing content for the product or service (Gössling et al., 2018). IM violates the quantity, quality, and relation of information. Marketers add by highlighting the good features of the product/service and delete the problems and issues related to the product in product/service information and delete the product's negative online reviews. Finally, the purchase of the product and services is incentivized with gifts, cash rebates, special discounts, and offers (Peng et al., 2016).

Previous research studies have revealed that consumers' purchase intention is influenced by the information manipulation of product advertisements done by marketers (Kim & Lennon, 2010). Marketers are using deepfakes to create a desirable hotel impression by adding extra features to make the hotel attractive. Also, deleting unfavorable features to hide the problems and issues is prevalent in advertising the hotel (Peng, 2020). Marketers use these IM tactics in deepfakes to make the hotel alluring and may positively influence customers to book a hotel.

2.6 New Media Literacy
Media literacy, an essential and multifaceted critical thinking skill (Leaning, 2017; Potter, 2010) equips individuals with the capacity to meticulously access, comprehend, and assess messages disseminated through various media platforms. This skill also empowers media users to form independent opinions and judgments regarding the content they encounter(Buckingham, 2015; Scharrer & Zhou, 2022). Chen et al. (2011) put forth an innovative theoretical model to explore the concept of new media literacy by examining the historical evolution of literacy and the technical and sociocultural attributes of new media. Their work marked a pioneering attempt to conceptualize new media literacy within the existing literature. Essentially, they identified new media literacy as existing along two continuums (a) from consuming to consuming media literacy, and (b) from functional to critical media literacy they defined as the following.

New media literacy is a contemporary concept that encompasses a collection of vital skills individuals need to navigate the mediated and
participatory culture of the 21st century. Educational institutions have acknowledged the significance of new media literacy and have prioritized its inclusion in their curricula, as new media environments have revolutionized the methods of learning and teaching. Engaging in media education activities can help students cultivate self-confidence, intellectual curiosity, and critical thinking abilities, which are essential for making well-informed judgments about media messages they may encounter in their future lives (Hobbs, 2017).

Consuming literacy encompasses the skills to access and utilize media messages at various levels, while prosuming media literacy takes it one step further by incorporating the competencies to produce media contents and actively participate in media environments (Koc & Barut, 2016). In line with Chen et al. (2011) contend that a media prosumer is essentially a hybrid of a producer and a consumer, as they often produce personalized content by leveraging preexisting media artifacts, ideas, and technological tools. In essence, the prosuming aspect of media literacy is intricately linked to the consuming facet, and together they constitute a powerful skillset for navigating the complex world of media.

Expanding on Buckingham (2015) concept of functional and critical literacy, Chen et al. (2011) define functional media literacy as the ability to operate media tools to access, create, and comprehend media messages at the textual level. In a refined framework proposed by (Lin & Liu, 2012) functional consuming literacy is represented by two indicators: consuming skill and understanding. Consuming skill involves technical abilities to operate hardware and software for accessing various media content, while the understanding indicator refers to the ability to comprehend the literal meaning of media messages. For instance, a functionally literate consumer can use computers and Internet search engines to find information in different forms of media and interpret others’ ideas shared in online discussion boards, chat rooms, or social networks.

Critical media literacy refers to the ability to analyze and evaluate media messages and comprehend them at various contextual levels. Similar to functional media literacy, critical media literacy builds upon a foundation of technical and operational knowledge of new media (Koc & Barut, 2016). Critical consuming literacy is characterized by three indicators: analysis, synthesis, and evaluation. The analysis indicator refers to the ability to deconstruct media messages in terms of their authorship, format, audience, and purpose. It emphasizes the recognition of media messages as subjective rather than neutral. For instance, a critical consumer can identify manipulative or biased news circulating on the Internet by examining its construction process and verifying it from multiple sources. Engaging in such an inquiry requires individuals to exercise higher-order thinking skills to critically engage with mediated messages (Koc & Barut, 2016).

2.7 Hotel Booking Intention

The rise of online booking platforms has led to a significant increase in the use of internet booking by customers. These consumers choose to book hotels using various online platforms after surviving different hotel websites, online advertising links, social media, and even video content of hotels (Arica et al., 2022). In the hotel industry, various hotel advertisements are displayed on technology platforms to attract consumers (Kim & Jun, 2016; Leung & Jiang, 2018; Stafford, 2020). Therefore, booking intention refers to the readiness of online customers to reserve accommodation through the digital platforms of service providers (Sivathanu & Pillai, 2022).

Advertisements play a significant role in attracting customers to book hotels (Alamäki et al., 2019). Several studies have been conducted to examine the impact of various types of advertisements on hotel booking intention (Akhtar et al., 2022). Furthermore, Consumers have access to a wide range of online sources of information before booking such as videos, reviews social media influencers, and hotel websites. However, due to the abundance of information, consumers often become skeptical about the authenticity of the information provided. This overload of information can lead to confusion and impact customer intentions when it comes to booking hotels (Sharma et al., 2022).
2022). But the issue of disinformation through various platforms and multimedia content critical dimension to investigate to accurately assess its impact on customer booking intention.

3. Future Research Recommendations

As digital disinformation insidiously permeates the online landscape, the pressing need for rigorous academic inquiry into its impacts becomes impossible to ignore. The hotel sector remains dangerously vulnerable to manipulated multimedia content and fabricated narratives that could undermine customer trust and booking intentions. An ambitiously multi-disciplinary research agenda is imperative to shed light on this emerging threat before real-world harm becomes irreversible.

Experimental studies should urgently evaluate how exposure to fake news, deepfakes, and deceptive ads directly alters customer psychology and behaviors. Collaborations with both social science scholars and computer scientists can uncover strategies to inoculate different consumer segments against manipulation and develop scalable detection systems for this menace. Industry leaders must be consulted to formulate potent policies and regulations that curb the spread of disinformation targeting their customers.

The stakes could not be higher in preserving transparency and truth in the digital hospitality ecosystem. With increasingly sophisticated tactics to disseminate false information, the scientific community must exert its full intellectual prowess. Multifaceted research crossing disciplinary boundaries and bridging academic and industry partnerships provides the first line of defense. We must deploy empiricism as the ultimate antidote to this viral contamination of facts. The window for proactive action is vanishing - further inaction risks the point of no return.

References


Nassar M., Elsaqqa M., and Medhat, S. H.

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