Effects of authenticity on customer retention of AI-powered branded app: A conceptual paper

Diem-Trang Vo
RMIT University Vietnam
Long Nguyen
RMIT University Vietnam
Duy Dang-Pham
RMIT University Vietnam
Ai-Phuong Hoang
RMIT University Vietnam

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Abstract:

Branded apps, especially with AI integration, have been used to build customer-brand relationships, showcase service promotions, and collect data from consumer interaction. However, the high rate of branded app abandonment after the short use is one of the concerns of marketing professionals. Previous studies have mainly explored the customer retention of this app through its social, hedonic and utilitarian benefits. Drawing on the traditional marketing notion of authenticity, this paper proposes the new concept of AI-powered branded app's authenticity, its drivers, and outcomes. This research contributes to the U&G theory, current knowledge of authenticity, AI-powered branded app and customer retention literature. From a practical perspective, examining authenticity in the age of AI is particularly timely, as this information may help brand managers effectively develop a branded app that positively engages customers.

Keywords: AI-powered branded app, authenticity, customer retention

Track: Digital Marketing and social media

1. Introduction

The branded application (branded app) enhances brand identity, engages customers, and offers real-time interaction, especially with the integration of new technologies such as augmented reality (AR), artificial intelligence (AI) (Hoyer et al., 2020). For example, the Sephora app transforms itself into a virtual stylist, which allows customers to test the products and receive experts' advice using AR and AI (Mishra et al. 2020). Similarly, Pulse by Prudential has claimed itself as a virtual health assistant that helps customers diagnose symptoms and conduct health assessments. These new technology-based branded app has significantly demonstrated their potential in reinforcing customer-brand relationships (Hoyer et al., 2020). However, the retention of the branded app is the biggest concern for app marketers (Mondal & Chakrabarti, 2021; Tseng, 2020). Approximately 26% of users abandon a branded app immediately after several usage sessions, which wastes the brand's acquisition cost and affects the business performance (Mondal & Chakrabarti, 2021). Although various adoption models have predicted consumer download and registration, it is unclear what makes consumers retain, which calls for research exploring how to make continuous usage compelling (Fang, 2017; Mondal & Chakrabarti, 2021).

The present study contributes to branded apps literature by conceptualizing the effect of authenticity on customer retention of an AI-powered branded app. This paper begins by reviewing relevant theories and concepts before proposing a conceptual model that explores the relationship between authenticity and customer retention of AI-powered branded app.

2. Theoretical background: Uses and gratification theory and authenticity motive

Uses and gratification (U&G) theory suggest that gratifications and motives attract and hold audiences to the different types of media (e.g., e-commerce sites, social media sites, and branded apps) (Hollebeek & Macky, 2019). Current U&G literature of branded app retention mainly focuses on hedonic, utilitarian, social motives (Table 1).

From the U&G perspective, Hollebeek and Macky (2019) suggest that authenticity factors are also crucial in a landscape of growing online interactions. Consumers desire brand-related continuity, integrity, credibility, and symbolism as sought through marketing touchpoints (Hollebeek & Macky, 2019; Lehman, O'Connor, & Carroll, 2019). Authenticity has been found to lead to desirable outcomes such as brand love, brand attachment, psychological brand ownership, better brand relationship quality, positive emotions, higher perceived value, lower perceived risk, and purchase intention (Kim, 2021; Morhart et al., 2015). In other words, while utilitarian and hedonic benefits quickly facilitate behavioural engagement,

tackling consumers' authenticity motive will result in better and enduring cognitive and emotional brand attitude, which makes the concept appropriate to be explored in the context of customer retention.

Factors	Motivations	Studies
Task-service fit, Usefulness	Utilitarian	(Fang, 2017)
Argument quality, Usefulness **Source credibility**	Utilitarian Authenticity	(Lee, 2018)
Telepresence, social presence	Social, Hedonic	(Lim et al., 2021)
System quality, Functional benefits **Experiential, Symbolic benefits**	Utilitarian Authenticity	(Tseng & Lee, 2018)
Interactivity, Value for time	Utilitarian	(Fang, 2019)
Omnipresence, Fun	Utilitarian, Hedonic	(Baek & Yoo, 2018)
Ease of use, Usefulness, Relevance **Entertainment, Visual appeal**	Utilitarian Hedonic	(Stocchi et al.,, 2020)
Pleasure, Arousal, Dominance	Utilitarian, Hedonic	(Hsieh et al., 2021a)

Table 1. Previous studies of branded apps that focus on continuance intention

3. Literature Review and Hypothesis Development

3.1.Authenticity

Authenticity in the consumption context has been conceptualised as the degree to which a supposed entity corresponds with or is "true to" the referent point (Moulard, Raggio, & Folse, 2020). This has been explored regarding a subject (e.g., person, service employee, celebrity) and object (e.g., restaurant, museums, tourism). In the subject's authenticity, the concept mainly refers to acting true to their inner self. For example, an authentic celebrity brand is defined as a celebrity's behaviours accord to their values and demonstrate some aspect of their true self (Kowalczyk & Pounders, 2016). With service employees, authenticity is defined based on employees' language use, emotions, explicit local knowledge, and interaction (Kim, 2021). In terms of an object, authenticity is reconceptualised as true to experience (Arsenyan & Mirowska, 2021). A Thai restaurant is authentic if, for example, it has all the necessary elements (Arsenyan & Mirowska, 2021). However, this subject-object approach has ignored any entity between, such as a non-human humanlike touchpoint.

While authenticity is considered an essential motive in engaging with branded content (Hollebeek & Macky, 2019), limited studies of new branded technology have conceptualised this concept as a separate construct. Rese, Ganster, and Baier (2020) define the authenticity of conversation as the user's ability to communicate with a chatbot naturally. In the same vein, Wuenderlich and Paluch (2017) suggest that authenticity is when an agent can natural

language processing. These studies mainly consider authenticity as part of utilitarian benefits rather than a separate important aspect. This approach may hinder the brand managers' ability to develop more trustworthy digital touchpoints. Taken together, by exploring the concept of authenticity, the research could complement to current understanding of functional and hedonic motives to provide a complete picture of users' gratifications to use new technology continuously.

Aligning with Moulard et al. (2020) 's conceptualisation, we propose that the authenticity of an AI-powered branded app is determined when customers see the virtual assistant (VA hereafter)'s characteristics (in the form of an AI-powered branded app) to be true with (1) the socially constructed standards of its function, (2) what it explicitly claims, (3) its moral values, and (4) customers' identity. First, as the role of this VA is a counterpart of frontline service interactions, customers may evaluate this social entity based on how true its characteristics correspond with a socially constructed standard of the service assistant (van Doorn et al., 2016). For instance, a virtual health assistant is authentic when it shows doctor-like characteristics such as proficiency, ability, interaction style. Second, VA is deemed authentic when it delivers its promises and fulfills its claims (Moulard et al., 2020). Like a salesperson, customers may satisfy with the service if the VA could convey trustworthy and in-depth product information and reduce uncertainty (Morhart et al., 2015). Third, VA is authentic if it is true to itself (Moulard et al., 2020). With the increasing number of applications in the market, consumers may have bad experiences with apps that are created for commercial purposes or data-stealing rather than solving customers' real issues (Spiggle, Nguyen, & Caravella, 2012). Fourth, authenticity is perceived when the entity reflects values that help customers construct who they are by using a brand (Moulard et al., 2020).

H1: The AI-powered branded app is perceived as authentic when it is (1) humanlike, (2) credible, (3) integrity, and (4) symbolic.

3.2. Media synchronicity

Media synchronicity theory proposes that people choose a medium depending on the fit between the media capabilities, information transmission needs, and information processing capabilities (Dennis & Valacich, 2008; Geiger, 2020). For example, when users need rapid messages to resolve a shared meaning (e.g., problem-solving, negotiation), they are involved in the convergence process (Dennis & Valacich, 2008). In this situation, high synchronicity media such as face-to-face communication or video conferencing is more appropriate. Considering the processing types, interacting with the VA in branded app context is more a convergence

processing. VA plays the role of a service agent that may quickly provide consultation, receive complaints, and support customers' orders. Therefore, high media synchronicity is more effective (Geiger, 2020). Customers are expected to perceive the authenticity of the virtual assistant in high synchronous media (AR interaction) compared to text-based, so they can see the interaction is truer to what is known as a service assistant.

3.3. Brand-app fit

The branded app is a type of brand extension, where customers evaluate the fit between the offerings and the brand to evaluate its motive (Iyer, Davari, & Mukherjee, 2018). When a new product is consistent with providers' expertise, it shows that the brand fulfills its core value, promises consistently, and does not change because of external motives (Schallehn, Burmann, & Riley, 2014). In contrast, if users think that the provider does not closely relate to the category, they may believe that this VA is created for data extraction or commercial purposes (Spiggle et al., 2012); therefore, they will see it as less authentic. Previous literature in authenticity has also highlighted such fit as part of internal consistency in brand extension authenticity. In other words, if the brand and the app portray the "match-up," consumers will see it to remain true to itself, maintain what it stands for, strive to achieve its promise, and not exploit the brand in the pursuit of commercial opportunities (Spiggle et al., 2012).

H2: Compared to low media synchronicity (text-based), high media synchronicity (text, image, video, AR) is more likely to increase customers' perceived authenticity towards VA.

H3: Compared to a brand with low category-fit, a provider with high category-fit is more likely to increase customers' perceived authenticity towards VA.

3.4. Parasocial interaction and customer retention

According to parasocial interaction theory, customers develop a relationship with the VA if they perceive the high level of realism, authenticity, or credibility of the partner (Giles, 2002). Parasocial relationship describes the long-term identification and relationship between the media users and media characters (e.g., brands, celebrities, fictional characters, a chatbot) (Giles, 2002). Parasocial interaction leads to desirable behaviour outcomes such as customer-brand connection, purchase intention (Whang & Im, 2021). When the VAs portray social presence, humanlikeness (Whang & Im, 2021), they may see it as a credible relationship partner; therefore, leading to desirable behaviour outcomes such as customer-brand connection, purchase intention, as well as customer retention (Giles, 2002).

H4: Perceived authenticity is positively related to Parasocial interaction

H5: Perceived authenticity is positively related to Branded-app retention

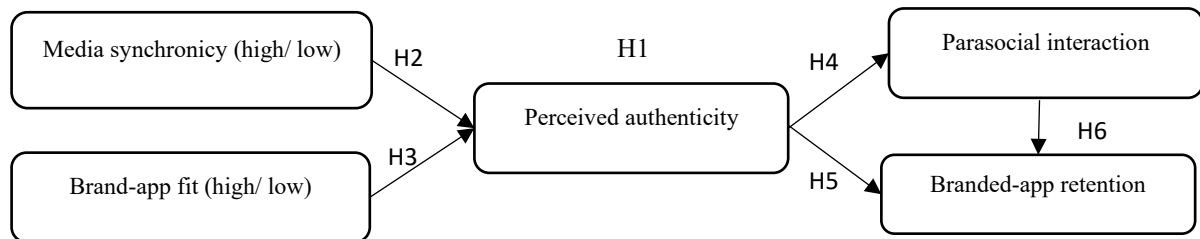H6: Parasocial interaction is positively related to Branded app retention

Figure 1. Conceptual model

4. Methodology

A 2 (high vs low media synchronicity) x 2 (high vs low brand-app fit) experimental study will be conducted to examine how the technological functions interact with social factors in the context of different service outcomes that impact customers' perception of authenticity, and in turn customers retention. As a scenario-based experiment, the study could control for confounding. Participants are first introduced to the definition of VA in healthcare before being randomized to one of the five protocols of a VA-based app. In each scenario, participants are instructed to imagine that they are using a AI-powered branded app. The description and protocol of the app are built on the actual app on the market. Then, they are asked to rate the level of media synchronicity, the fit between app and brand. After that, questions about their perceived authenticity, parasocial interaction, branded-app retention are asked. To ensure the validity of this research, all instruments used in the study (e.g., parasocial relationship, retention) have been validated in the previous studies Construct reliability and validity of the multi-item will be examined by factor analysis, Cronbach's alpha, and composite reliability (cut-off value of 0.7) before being tested convergent validity by the average variance extracted (AVE). ANOVA is performed to see whether there is a difference between different groups and the interaction effect between media synchronicity and brand-app fit. SEM is conducted to analyse the relationships of other factors. SPSS and AMOS are used for this statistical, mediation, and moderation analysis.

5. Contribution

The importance of authenticity has long been recognized in brand and marketing literature (Morhart et al., 2015; Hollebeek & Macky, 2019). Although consumers increasingly demand authenticity in marketing offerings, limited studies explore this concept to the new

technologies. This conceptual paper contributes to the existing work of U&G theory and authenticity literature, and suggests new antecedents for an empirical study.

5.1 Conceptualizing authenticity as a motive for branded-app retention

Most prior studies on branded app retention have examined its drivers from a utilitarian-hedonic perspective (Fang, 2017; Lee, 2018), with few studies questioning consumers' underlying desire for authenticity (Hollebeek & Macky, 2019; Lehman et al., 2019). Our review indicates that app-related humanlikeness, integrity, credibility, and symbolism are significant motives customers seek through apps. Anticipating that consumers will demand these inference characteristics, marketing managers should consider how the app's technical, emotional benefits could help coordinate well with customers like a human, deliver credible information, and not harm consumers' identities.

When consumers use an AI-powered app, they may question whether it could perform like a human (van Doorn et al., 2016). An AI-powered app often claims itself as a virtual assistant, a virtual service agent, in which most of its functions aim to complement or replace a human agent (van Doorn et al., 2016). Additionally, there are millions of AI-powered branded app available every year, which may bring both convenience (e.g., information, connection with brands), disappointment (e.g., crash, lag, underdevelopment), and risk (e.g., privacy risk, financial risk) to customers. Thus, customers demand a credible and integrity app, which is trustworthy and is developed based on customers' interests rather than exploitation (Morhart et al., 2015). With the integration of AI, people may feel their identity is threatened; hence, customers use an AI-powered branded app only when it brings symbolic values to them (Whang & Im, 2021). Compared to technological function, authenticity is a stronger motive as it requires consumers to spend extra time and effort evaluating brand-related inner characteristics (Hollebeek & Macky, 2019).

5.2 The extension of the authenticity construct in the context of a digital touchpoint

We conceptualise authenticity in the context of a digital touchpoint, and we argue that this is an important driver for branded app retention. Previously, this concept has been studied in either subject (celebrity, service people, CEO) or object-based (restaurant, tourism) brand touchpoints. Still, no research has drawn on a humanlike non-human touchpoint such as an AI-powered branded app, which integrates both characteristics of an object (an app) and a subject (a service agent). Similar to a service agent, an AI-powered app should demonstrate ability in its field (humanlikeness) and honestly show what it stands for (integrity) helps

customers to construct who they are (Kim, 2021; Morhart et al., 2015). Similar to an object, for example, a restaurant, an AI-powered app should make people feel that they are at the original place (e.g., humanlikness, same experience as they interact with humans) and keep its promise to provide a traditional dining experience (credibility) (Lehman et al., 2019).

5.3 The new antecedents for authenticity

Our framework highlights the importance of fit in customers' perceived authenticity. Authenticity is a socially constructed concept in which people evaluate it based on a certain referent point (Moulard et al., 2020). We argue that interacting with AI app in the service context is a conveyance process, where customers expect virtual service agents to solve the problems quickly. In the context of high media synchronicity, customers may perceive the good fit between the AI-powered app that uses text, image, video, AR, and its service role; thus, they see the app as more authentic. In addition, a branded app is a part of branded content, which could be considered an extension of a brand. The desire for the match-up between the brand and its extension has been mentioned as necessary in the authenticity literature (Spiggle et al., 2012) but not yet explored empirically. The idea of a fit between media type and task (media synchronicity); and between brand and app (brand-app fit) is vital to building customers' perception of authenticity. The desire for a humanlike (developed through high media synchronicity), credible, intergrity and symbolic (developed through brand-app fit) branded-app may lead to desirable outcomes.

6. Conclusion

Marketers spend significant effort and resources on app development and acquisition. The discontinuance of consumer use of the branded app negatively affects brands, practitioners, and customers. This conceptual paper draws on U&G as its underlying theory to derive the authenticity motives and relevant relationships. Future studies will empirically test the model and come up with practical implications.

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