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van Berlo, Z.M.C.; van Reijmersdal, E.A.; van Noort, G.

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Branded App Engagement: Comparing Apps from Goods and Service Brands

Zeph M. C. van Berlo, Eva A. van Reijmersdal, Guda van Noort

1 Introduction

Digital consumer engagement was recently rated as *the* top strategic priority for the coming years by CEO's and other C-level executives in a large scale survey by McKinsey & Company (2014). A likely reason for this endorsement is that highly *engaged* consumers are believed to be more responsive to advertising messages, leading to increased persuasion (Calder, Malthouse, & Schaedel, 2009). Where digital consumer engagement encompasses consumer engagement via various digital platforms—from social media to company websites—one digital platform that has been receiving an increasing amount of attention in recent years is the branded app.

Branded apps are “software that is downloadable to a mobile device and prominently displays a brand identity [throughout the user experience], often via the name of the app and the appearance of a brand logo or icon” (Bellman, Potter, Treleaven-Hassard, Robinson, & Varan, 2011, p. 191). Differences in marketing strategies between types of brands however, can shape the development of these apps—potentially resulting in branded apps that elicit different experiences. Goods brands for example might configure their apps to facilitate the purchase of (branded) products, where service brands might use them as a platform to offer their (online) service (Kim, Lin, & Sung, 2013). For that reason, apps from different types of brands are expected to elicit different types of engagement experiences with their users.

In this chapter we examine to what extent various types of app engagement are experienced by branded app users and whether this differs between users of goods and service brand apps. By adopting the media engagement framework (Calder et al., 2009), this study offers novel insights into the workings of app engagement. In addition, it increases the understanding of the types of engagement experiences that branded app users experience. Besides, the results offer valuable insights for brand managers and app developers who aim to develop branded apps that will actually be used by their consumers.

2 Branded App Engagement

2.1 *Media Engagement Framework*

In this chapter, we conceptualize branded app engagement in line with the media engagement framework (Calder et al., 2009). This framework differentiates between engagement experiences (e.g., convenience, intrinsic enjoyment) and engagement consequences (e.g., clicks, likes, shares). Branded app engagement is defined as the set of experiences branded app users have while using a branded app. This engagement ultimately leads to engagement consequences—like re-using or liking an app—sometimes also referred to as ‘indicators of usage and attentiveness’ (Calder et al., 2009), ‘outcomes of online customer experience’ (Alnawas & Aburub, 2016), or ‘digital engagement practices’ (Eigenraam, Eelen, Van Lin, & Verlegh, 2018).

Branded apps can elicit various types of experiences to be engaging. For example, an app can be more functional or informational and provide utility, whereas another can be more experiential, and provide intrinsic enjoyment experiences (Bellman et al., 2011). It is also conceivable that a branded app is experienced both functionally and experientially at the same time. Take for example the Netflix app, which can clearly be experienced as being functional, for it offers the ability to easily select a film or a series to watch, but at the same time could also be experienced as being experiential, when evoking enjoyment or excitement while watching a film or series. In sum, when engaged with branded apps, people can have different experiences—which may occur simultaneously.

In this chapter, four engagement experience types are considered: personal identification, social facilitation, intrinsic enjoyment, and convenience. The first three were identified by Calder et al. (2009) as important media engagement experiences for websites users. These engagement experiences were later shown to be also relevant in a branded app context (Bellman et al., 2011). The fourth experience type, convenience, was added due to the convenient nature of the medium. A characteristic of branded apps, and mobile apps in general, is that they are inherently convenient, because they can be accessed at any time and are often close at hand (Larivière et al., 2013).

Branded apps are expected to induce, at least to some extent, experiences from all four engagement experience types. Which means that branded app users are believed to experience the engagement dimensions personal identification, social facilitation, intrinsic enjoyment, and convenience. It is unknown however which types of app engagement are experienced the most by branded app users. Therefore, we propose the following research question:

RQ1: To what extent do branded app users experience personal identification, social facilitation, intrinsic enjoyment, and convenience?

2.2 Comparing Branded Apps from Goods and Service Brands

A recent content analysis of branded apps (Kim et al., 2013) showed that there are differences between apps from goods and service brands in the amount of attributes of engagement they integrate. Attributes that are considered by Kim et al. (2013) are for example vividness, multi-platforming and feedback, and are according to the authors integrated into the branded app with the aim to elicit engagement. They indicate that generally goods brands integrate more attributes of engagement than service brands. In addition, the content analysis showed that both types of branded apps seem to include entertainment features.

It is unclear however, whether these differences between apps from goods and service brands also result in different levels of engagement—as experienced by the users of these apps. In line with our first research question, we will examine whether levels of engagement differ between the four dimensions of engagement, however now we differentiate between goods and service brand apps. The following research question is proposed:

RQ2: Do app users, from (i) goods and (ii) service brand apps, differ in the extent to which they experience personal identification, social facilitation, intrinsic enjoyment, and convenience?

Apart from whether levels of engagement experience differ between the four engagement dimensions, the level of experience intensity might also differ within engagement dimensions between the two types of branded apps. We will therefore examine whether branded app users from goods and service brands differ from each other in the levels of engagement that they experience within each app engagement dimensions (i.e., personal identification, social facilitation, intrinsic enjoyment, convenience). The following research question is proposed:

RQ3: Do app users from goods versus service brand apps differ from each other in the levels of engagement they experience within the engagement dimensions personal identification, social facilitation, intrinsic enjoyment, and convenience?

3 Method

3.1 Participants and Procedure

A cross-sectional survey was administered across a representative sample ($N = 298$) of Dutch smartphone users. The participants (50.0% female) were part of an online panel and ranged in age between 18 and 74 years old ($M = 42.54$, $SD = 14.55$). On average they indicated to have 33.43 ($SD = 24.83$) apps installed on their smartphones, of which on average 8.14 ($SD = 7.33$) were branded apps—meaning that about one in four of their apps was branded.

The participants were first asked to select the branded app they had used most recently. In this study, branded apps were defined by two criteria. The participants were asked to select an app that (i) had a clear brand identity (for example by including brand indicators such as logos and brand names), and (ii) had been developed by a company that offered a paid product (e.g., retail, grocery shopping) or service (e.g., banking, streaming services). Participants that did not choose an app that met these requirements were excluded from the study.

Next, participants were asked to answer a set of questions about the branded app. Previous studies (e.g., Voorveld, Bronner, Neijens, & Smit, 2013) have shown that asking for the most recent interaction with a medium (in this case a branded app) is an effective method to study media consumption. Apart from this interaction being the most salient in the memory of the participant and thus leading to more reliable answers, this method also facilitates the inclusion of a wider variety of apps that people actually use—increasing the external validity of the findings. The questions measured various app engagement experiences that participants could have with this app. Furthermore, because the survey was part of a larger project (Van Berlo, Van Reijmersdal, & Van Noort, 2018), several additional variables (i.e., app use, app attitude, app attention, and brand attitude) were measured that are not reported or analyzed for this chapter. Finally, the demographic information of the participants was recorded after which the participants were thanked for their participation and paid by the online panel.

3.2 Measures

3.2.1 App Engagement Type

Eighteen items were used to measure app engagement, on Likert scales ranging from 1 (Totally disagree) to 7 (Totally agree). Fourteen items from Calder et al. (2009) were used to measure the personal identification experience (9), social facilitation experience (3), and intrinsic enjoyment experience (2). The four items measuring the convenience experience were based on the two dimensions of convenience (usefulness and ease of use) as described by Davis (1989).

An exploratory factor analysis with direct oblimin rotation was used to determine the dimensionality of app engagement. Bartlett's test of sphericity ($p < .001$), and the Kaiser-Meyer-Olkin (KMO) value (.91), indicated that the factor model was adequate. Four factors were identified, in correspondence with the four engagement dimensions, and reliable index variables were created: personal identification ($EV = 8.32$, $R^2 = .46$, Cronbach's $\alpha = .92$), social facilitation ($EV = 3.26$, $R^2 = .18$, Cronbach's $\alpha = .90$), intrinsic enjoyment ($EV = 1.03$, $R^2 = .06$, $r_{SB2} = .82$), and convenience ($EV = 1.01$, $R^2 = .06$, Cronbach's $\alpha = .90$).

3.2.2 Brand Type

To determine the brand type of the embedded brands, the selected branded apps were all coded either as goods (0) or service (1) brands by one of the researchers. Goods brands were brands that offer a physical product (or products) that people can buy. Examples are retail brands (e.g., clothing, pharmaceuticals, consumer electronics) and brands that sell food products. Service brands are brands that offers a service that people can pay for. For example banking and other financial brands, but also providers of telecommunications and media streaming services were coded as service brands. Overall, 100 brands were coded as goods brands and 198 as service brands. Of these brands, 33 unique goods brands and 37 unique service brands were identified.

4 Results

4.1 Comparing App Engagement Experience Types

To answer the first two research questions, a repeated measures analysis of variance was estimated with app engagement types as within-subject factors and brand type as between-subjects factor. The test was significant, $F(2.41, 746.86) = 271.60, p < .001$. Note that the Mauchly's test, $\chi^2(5) = 111.82, p < .001, \epsilon = .80$, indicated that sphericity could not be assumed and a Huynh-Feldt correction was therefore applied (Field, 2017).

Table 1. Descriptive statistics for app engagement per dimension and brand type.

	<i>N</i>	<i>Personal Identification</i>		<i>Social Facilitation</i>		<i>Intrinsic Enjoyment</i>		<i>Convenience</i>	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Total	298	3.43 ^a	1.30	3.28 ^a	1.54	4.59 ^b	1.26	5.50 ^c	0.97
Goods	100	3.81 ^a	1.23	3.82 ^a	1.42	4.78 ^b	1.20	5.29 ^c	0.81
Service	198	3.24 ^a	1.29	3.00 ^b	1.53	4.50 ^c	1.29	5.61 ^d	1.03

Note. Means in the same row that do not share a superscript differ from each other with $p < .022$.

The results (as displayed in Table 1, row 'Total') showed that for branded apps in general, there were differences between the mean scores of the four app engagement dimensions. The scores for convenience and intrinsic enjoyment were highest, and differed significantly from each other, of which convenience was the most frequently reported engagement experience. Personal identification and social facilitation were significantly less experienced than intrinsic enjoyment and convenience. Their means did not differ from each other. This means that

branded app users were primarily engaged with branded apps through experiences of convenience and intrinsic enjoyment. Experiences of personal identification and social facilitation were less likely to be reported by branded app users.

4.2 Comparing Branded Apps from Goods and Service Brands

For RQ2 we compared the means of the four types of engagement experiences per brand type, the results (see Table 1, row ‘Goods’ and ‘Service’) were similar to the overall findings. For goods brands the levels of engagement experience between the engagement dimensions were identical to the overall experience levels, whereas for service brands the results were slightly different. Social facilitation was, by service brand users, experienced significantly less than personal identification. Similarly to the overall findings, branded apps from both goods and service brands primarily offered engagement to their users through convenience and intrinsic enjoyment experiences.

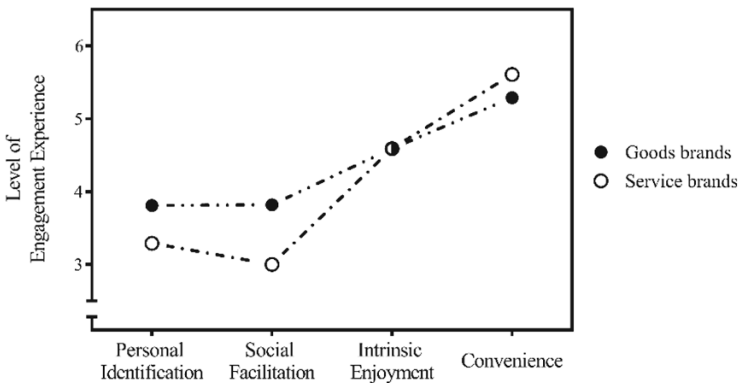


Figure 1: Visualization of the levels of engagement for goods and service brands. Note that the differences in levels of personal identification, social facilitation, and convenience experiences, between goods and service brands, are significant—see Section 4.2 for corresponding statistics.

To answer RQ3, four independent samples *t*-tests were performed to compare engagement experience levels between brand types. Differences were found for personal identification, $t(296) = -3.63, p < .001, d = 0.44$, social facilitation, $t(296) = -4.41, p < .001, d = 0.55$, and convenience, $t(296) = 2.69, p = .008, d = 0.34$. As shown in Figure 1, branded apps from goods brands elicited more personal identification and social facilitation experiences than apps from service brands. Contrary, branded apps from service brands generally elicited more convenience experiences than branded apps from goods brands.

No difference was found between the two types of branded apps for intrinsic enjoyment, $t(296) = -1.78, p = .076$. This means that app users from both types of branded apps experienced comparable levels of intrinsic enjoyment from using the apps.

5 Discussion

In this chapter, we examined to what extent various types of app engagement are experienced by branded app users and whether this differs within and between the four engagement dimensions personal identification, social facilitation, intrinsic enjoyment, and convenience. Moreover, differences between users of goods and service branded apps were examined.

First, the results indicate that especially engagement in terms of convenience and intrinsic enjoyment are experienced by branded app users. Personal identification and social facilitation experiences are reported less often. Second, goods brands evoke more personal identification and social facilitation experiences than service brands, where service brands evoke more engagement in terms of convenience experiences. Equal levels of intrinsic enjoyment are experienced by branded app users from goods and service brands.

The fact that branded apps seem to elicit foremost convenience experiences could be explained by the nature of branded apps. Often they are designed to help consumers, for example to facilitate online purchases or by offering information about a product or service (Kim et al., 2013). Additionally, the mobility of the app could also increase the experience of convenience, for branded apps are exclusively mobile. This means that they can be used virtually at any moment and any place (Larivière et al., 2013). The latter could have also contributed to the experience of convenience when using branded apps.

Third, branded apps from goods brands generally elicit more personal identification and social facilitation experiences than those of service brands. An explanation for these differences could be that branded apps from goods brands generally have more attributes of engagement, like vividness, multi-platforming and feedback, integrated into their design (Kim et al., 2013). Where it is currently unknown what specific effects the integration of these attributes has on the different dimensions of engagement, it is conceivable that the integration primarily elevates engagement in terms of personal identification and social facilitation experiences. For example because, as outlined by Kim et al. (2013), branded apps from goods brands seem more likely than those of service brands to offer a more vivid brand experience, to enable users to connect to the brand website, and to facilitate online discussions via the app.

Moreover, branded apps from service brands seem to be experienced as being more convenient than those of goods brands. A likely reason for this difference is that branded apps from service brands are, even more so than apps from goods brands, designed to perform a specific task that makes one's life easier.

5.1 *Limitations and Suggestions for Further Research*

In this study, only four types of app engagement experiences were considered. Where all four seem experienced at least to some degree by branded app users, it seems likely that additional engagement experiences could be identified that are also important for branded apps. For example, Alnawas and Aburub (2016) demonstrated that branded apps can elicit learning experiences. This type of experience was not considered in the current study, but could be explored in more detail in the future.

Identifying additional app engagement experiences could be done using either a top-down or bottom-up approach (Calder & Malthouse, 2008). When considering a top-down, or theory-driven, approach, engagement experiences are identified based on insights from existing literature. Engagement experiences could for example be extracted from the engagement attributes as described in the content analysis by Kim et al. (2010) or by taking a comprehensive behavioral framework, like the second generation of the unified theory of acceptance and use of technology (Vekatesh, Thong, & Xu, 2012) as starting point. Alternatively, a bottom-up approach could be used, as described in Calder and Malthouse (2008). They demonstrated that engagement experiences can be identified by using qualitative methods such as in-depth interviews.

Furthermore, besides apps from goods and service brands, future research could also focus on other types of branded apps. A type of branded app that is expected to elicit different engagement experiences than the regular branded app is the (fully) gamified branded app; or advergame (Terlutter & Capella, 2013). Where advergames are designed in part to be entertaining (Van Berlo, Van Reijmersdal, & Rozendaal, 2017), it seems conceivable that they elicit higher levels of intrinsic enjoyment than regular branded apps.

Finally, studies could focus on how different engagement experiences result in cognitive, affective, and conative brand responses. These three types of responses have been identified as outcomes of engagement in consumer behavior contexts in the past (Wilkie, 1994). A recent study for example showed that app enjoyment drives affective brand responses for entertainment apps (Van Noort & Van Reijmersdal, 2019). A comprehensive outline of possible outcomes of engagement are described in Eigenraam et al. (2018). Note that where most engagement literature seems to suggest that the causal relationship between engagement experiences and engagement consequences is asymmetrical—from engagement experience to engagement consequence—some literature suggests that this relationship is actually symmetrical.

More specifically, according to the differential susceptibility to media effects model (DSMM; Valkenburg & Peter, 2013), the relationship between engagement experiences (when described as media effects) on the one hand and media use and response states (i.e., cognitive, emotional, excitative responses) on the

other could be described as transactional—meaning that they are likely to influence each other over-time in a reciprocal manner. A concrete example would be that (i) an app user experiences personal identification when using a branded app, after which (ii) the person decides to use the app more often, which over time again (iii) strengthens one’s experience of personal identification when using the app.

This possible reciprocal relationship between the types of engagement experiences and the outcomes of engagement could be studied using a longitudinal survey. Ultimately, resulting in a better understanding of how users engage with branded apps and what type of value this ultimately creates for both the brand and the consumer.

5.2 *Practical Recommendations*

Branded apps can be an effective marketing tool to engage consumers, however not all branded apps offer the same types of engagement and are equally successful. Where over two-thirds of marketers (Adobe, 2018), and more than 90% of the top 100 global brands (Distimo, 2011), nowadays include branded apps into in their marketing mix, mobile testing service Stardust (2013) showed that most of these (branded) apps are actually *zombie* apps—and are hardly used by consumers.

Where this study did not explore the effectiveness of branded apps, the results do offer valuable insight for practitioners who aim to develop branded apps that consumers use and engage with. In this study, participants were asked about their most recent interaction with a branded app, which means that the results are especially generalizable to branded apps that people actually use—apps that seem successful in engaging their target audience.

Considering the results of this study, it seems therefore important for practitioners, when developing or auditing branded apps, to assure that the app offers its users experiences of convenience and intrinsic enjoyment. Convenience is experienced when the app makes one’s life easier; for example when it facilitates performing a specific task. App functionalities that are deemed useful by its users could boost convenience experiences. Intrinsic enjoyment experiences are experiences of enjoyment, arousal, or relaxation from using the branded app. Gamifying app functionalities might be key in the elicitation of this type of experience. Where these insights are valuable for branded apps from both goods and service brands, the results indicate that for service brands the convenience experiences are especially important, for they seem to elicit the highest levels of convenience experiences.

6 References

- Adobe (2018, February). "The next mobile decade: A report on the state of mobile maturity ten years after the introduction of the iPhone". Retrieved from: <https://landing.adobe.com/dam/2018/downloads/whitepapers/ctir-3861.en.mobile-study.pdf>
- Alnawas, I., & Aburub, F. (2016). "The effect of benefits generated from interacting with branded mobile apps on consumer satisfaction and purchase intentions". In: *Journal of Retailing and Consumer Services*, Vol. 31, 313-322. <https://doi.org/10.1016/j.jretconser.2016.04.004>
- Bellman, S., Potter, R. F., Treleaven-Hassard, S., Robinson, J. A., & Varan, D. (2011). "The effectiveness of branded mobile phone apps". In: *Journal of Interactive Marketing*, Vol. 25, 191-200.
- Calder, B. J., & Malthouse, E. C. (2008). "Media engagement and advertising effectiveness". In B. J. Calder (Ed.), *Kellogg on advertising and media* (pp. 1-36). Hoboken, NJ: John Wiley & Sons, Inc.
- Calder, B. J., Malthouse, E. C., & Schaedel, U. (2009). "An experimental study of the relationship between online engagement and advertising effectiveness". In: *Journal of Interactive Marketing*, Vol. 23, 321-331.
- Davis, F. D. (1989). "Perceived usefulness, perceived ease of use, and user acceptance of information technology". In: *MIS Quarterly*, Vol. 13, 319-340.
- Distimo (2011, October). "The 2011 top 100 global brands and their app store status". Retrieved from: <https://www.slideshare.net/zebs/the-2011-top-100-global-brands-and-their-app-store-status>
- Eigenraam, A. W., Eelen, J., Van Lin, A., & Verlegh, P. W. (2018). "A consumer-based taxonomy of digital customer engagement practices". In: *Journal of Interactive Marketing*, Vol. 44, 102-121.
- Field, A. (2017). "Discovering statistics using IBM SPSS statistics". Thousand Oaks, CA: Sage Publications Inc.
- Kim, E., Lin, J. S., & Sung, Y. (2013). "To app or not to app: Engaging consumers via branded mobile apps". In: *Journal of Interactive Advertising*, Vol. 13, 53-65.
- Larivière, B., Joosten, H., Malthouse, E. C., Van Birgelen, M., Aksoy, P., Kunz, W. H., & Huang, M. H. (2013). "Value fusion: The blending of consumer and firm value in the distinct context of mobile technologies and social media." In: *Journal of Service Management*, Vol. 24, No. 3, 268-293.
- McKinsey & Company (2014, June). "The digital tipping point: McKinsey Global Survey results" [Blog post]. Retrieved from <https://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/the-digital-tipping-point-mckinsey-global-survey-results>
- StarDust. (2013). "Mobile applications & reputation: What do we learn from users' review analysis?" Retrieved from http://www.stardust-testing.com/ressources_1/notice-m-reputation-en.pdf
- Terlutter, R., & Capella, M. L. (2013). "The gamification of advertising: Analysis and research directions of in-game advertising, advergames, and advertising in social network games". In *Journal of Advertising*, vol. 42(2-3), 95-112.
- Valkenburg, P. M., & Peter, J. (2013). "The differential susceptibility to media effects model". In *Journal of Communication*, Vol. 63, No. 2, 221-243.

- Van Berlo, Z. M. C., Van Reijmersdal, E. A., & Van Noort, G. (2018). *App engagement experience types: On the value of branded app engagement*. Paper presented at International Conference of Research in Advertising (ICORIA), Valencia, Spain.
- Van Berlo, Z. M. C., Van Reijmersdal, E. A., & Rozendaal, E. (2017). "Weet wat er speelt: De rol van merkbekendheid in effecten van mobiele advergames op tieners". In: *Tijdschrift voor Communicatiewetenschap*, Vol. 45, No. 3, 216-236.
- Van Noort, G., & Van Reijmersdal, E. A. (2019). "Branded apps: Explaining effects of brands' mobile phone applications on brand responses". In: *Journal of Interactive Marketing*, Vol. 45, 16-26.
- Venkatesh, V., Thong, J. Y. L., & Xu, X. (2012). "Consumer acceptance and use of information: Extending the unified theory of acceptance and use of technology". In: *MIS Quarterly*, Vol. 36, No. 1, 157-178.
- Voorveld, H. A., Bronner, F. E., Neijens, P. C., & Smit, E. G. (2013). "Developing an instrument to measure consumers' multimedia usage in the purchase process". In: *International Journal on Media Management*, Vol. 15, 43-65.
- Wilkie, W. (1994). *Consumer behavior (3rd ed.)*. New York, NY: John Wiley and Sons, Inc.