



Mobile Promotions: A Framework and Research Priorities

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Abstract

This work bridges theory and practice on mobile promotions and proposes a research agenda. We do so by first defining mobile promotions and distinguishing them from mobile advertising. We then develop a framework for various stakeholders in the mobile promotion ecosystem. Finally, we advance research questions concerning each stakeholder and view these questions through the lens of several overarching themes that surround mobile promotions, such as the privacy–value tradeoff, return on investment, spatiotemporal targeting, inter-media substitution, and channel and consumer power.

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Introduction

Mobile promotions are becoming increasingly relevant for marketers. These coupons offer marketers unprecedented opportunities to connect with consumers by leveraging the powerful data that location and consumer behaviors uniquely generate. Never before could marketers reach so many people almost instantly, as more and more people use mobile phones as their remote control to everyday life. Today, the number of smartphone subscriptions is nearing 3 billion, and by 2020, 90% of the world's population will own a mobile phone (Ericsson Mobility Report 2014). In fact, some consumers even leapfrog technology by using mobile devices instead of computers as mobile internet penetration outpaces that of desktop internet. It makes sense, then, that more than 80% of digital coupon users in the U.S. redeem coupons via mobile devices (eMarketer 2015a).

Consumers do not exist alone in the ecosystem of mobile promotions. Rather, several stakeholders play key roles, including retailers, manufacturers, and intermediaries. In fact, by 2017 almost half of U.S. companies with 100 employees or more plan

to leverage mobile promotions (eMarketer 2015b). Before detailing each stakeholder's role, we define mobile promotions.

Broadly defined, mobile promotions comprise information that is delivered on a *mobile device* and offers an *exchange of value*, with the intent of driving a *specific behavior* in the *short term*. This definition of mobile promotions, also referred to as m-coupons, consists of four key components. First, a mobile device is an electronic, portable device that consumers carry with them and engage with frequently during their daily activities (e.g., commuting, working, shopping). Mobile devices must furnish certain capabilities when it comes to mobile promotions: (i) connectedness — mobile devices must be able to connect to the Internet or cellular towers in order to send and receive communications; (ii) individual addressability — mobile devices must be able to be individually targeted in order to receive mobile promotions; and (iii) interactability — mobile devices must enable consumers to interact with desired targets (retailers, brands, other consumers) at all times, including when moving from one location to another. Thus, while the mobile device that readily comes to mind is a mobile phone or smartphone, this definition includes other devices such as tablets, mini-tablets, phablets (phone tablets) and wearable technology such as smartwatches and (albeit recently-discontinued) Google Glass.

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This definition of mobile devices holds that mobile promotions can be delivered at any point in time during the consumer purchase process. These time-points include when consumers are searching for inspiration or information, considering a purchase, making a purchase decision, or completing a transaction. Moreover, mobile promotions can be delivered to consumers using many formats such as SMS (short message services), in-app messaging, social media, email, or push or pull notifications.

The second key component of mobile promotions is that they provide a clear exchange of value to the consumer (Shankar and Balasubramanian 2009). Value exchanges may be financial and include: (i) a price discount (via dollar or percentage off), used extensively in the apparel retail industry; (ii) a gift with purchase, commonly leveraged in cosmetics retailers; (iii) a free sample, typical for consumer packaged goods manufacturers; (iv) a “buy one get one” free promotion frequently employed in the food industry; or (v) an amplification of current “sales” (promotions without a code) currently available. Non-financial value may also be offered, such as free Wi-Fi or status badges.

Note that offering a value exchange to consumers distinguishes mobile promotions from mobile advertising, even though these terms are often used interchangeably. Whereas mobile advertising strives to influence brand attitudes and build brand equity in the long run, e.g., a mobile banner ad that only displays a brand name, such as Ralph Lauren (Grewal et al. 2016), mobile promotions aim to drive a specific consumer behavior in the short term (e.g., a mobile promotion that includes the offer “buy now and get 10% off!”). This desired behavior may be to visit a store (driving footfall, a key merchant metric), make an in-store purchase, share product or location-based information via social media (e.g., Foursquare, Facebook, Twitter), or engage with a product (e.g., sample a new item). Moreover, while mobile ads may be triggered by a general search (e.g., entering the search term “shoes” on the mobile web), mobile promotions are more typically triggered by a specific behavior (e.g., entering the shoe section of a department store). For this reason, mobile promotions differ from mobile advertising in the specific value exchange they offer and in the consumer behaviors that trigger the marketing response.

The third and fourth key components of mobile promotions involve activating a desired consumer behavior in the short term. The goal is to drive behavior towards the end of the purchase cycle, close to the point of purchase. The short term may differ by product category and purchase cycle duration. For instance, the short term for buying cereal may be limited to the 10 seconds that consumers contemplate which cereal to buy in-aisle, while the short term for buying movie tickets may include the few days leading up to the promoted movie. Further, the purchase behavior does not necessarily have to be planned. Rather, mobile promotions may help stimulate unplanned or impulse buys at or near the point of purchase. For mobile promotions to be effective, though, it is imperative that marketers understand the benefits and costs of mobile promotions for the key stakeholders that make up the mobile promotion ecosystem.

The remainder of this paper explores the ecosystem of mobile promotions and the key stakeholders that make up this

ecosystem. In what follows, we discuss the ecosystem and provide a framework for understanding the role of mobile promotions relative to the theory of unplanned purchases, the various stakeholders, and the benefits and risk of mobile promotions. We then advance a research agenda with specific queries and propositions, and conclude with a summary.

A Stakeholder View of Mobile Promotion Stakeholders — Theory and Ecosystem

Per the definition of mobile promotions, marketers aim to stimulate specific consumer behaviors in the short-term by offering an exchange of value via mobile devices. This promotional strategy is not novel, but has been employed for decades through other mediums, such as in-store flyers, mailers, loyalty card coupons, and checkout coupons. Several interrelated theories of purchasing explain why short-term promotions are effective. Foremost is the theory of unplanned or impulse purchasing, which suggests that some purchases may result from an impulse or last-minute decision to buy an item that consumers had not previously planned to purchase (Rook 1987). This impulse may be prompted by factors ranging from financial (discounts, rebates), to social (peers, family), to environmental (atmospherics, display location). Importantly, unplanned purchases often occur close to the point-of-purchase, when consumers may be more likely to consider making the unplanned purchase and have less time to deliberate on it. Helping explain this temporal condition of impulse buying is the construal level theory, which holds that consumers are more likely to consider the details of a promotion the sooner in time consumption occurs (Lieberman and Trope 2008).

This temporal dimension cannot exist apart from the spatial context in which consumers may consider a mobile offer, though. Both the location *and* timing of mobile promotion delivery have been found to significantly influence consumer redemption (Danaher et al. 2015). For instance, if consumers have to travel farther to consume the product, mobile promotions must provide more lead-time (Luo et al. 2014). Indeed, the contextual marketing theory supports that to be effective, mobile promotions must be context-dependent (Kenny and Marshall 2000). That is, beyond adopting a spatiotemporal perspective, marketers must also understand the contexts in which consumers may consider a mobile promotion. For example, scholars recently found that in crowded environments, consumers may be more likely to consider a mobile offer because they may escape from their surroundings by paying more attention to their mobile devices (Andrews et al. forthcoming).

Mobile promotions thus offer a more convenient way to stimulate unplanned purchases or trigger the final push to purchase by reaching consumers when they are close to a store, point-of-purchase, or purchase consideration. As such, marketers may employ a push strategy by delivering promotions via a novel medium: mobile devices. However, location identification is necessary to push mobile promotions to consumers near stores. Marketers may leverage cell towers, GPS, Wi-Fi, beacon, latitude and longitude coordinates of radius targeting from bid requests from ad networks, or near-field communications to identify the

location of consumers. In addition, push notifications require consumers to opt-in in many jurisdictions.¹ However, if marketers cannot identify consumer locations or obtain consumer consent, they can still play in the mobile promotion ecosystem. This is because not all mobile promotions need to operate on a push-strategy of stimulating unplanned purchases. Indeed, whereas in a previous era consumers may have actively searched for coupons in print and online media, today's mobile consumer can conduct coupon searches with their mobile phones. Thus, mobile devices facilitate a pull-strategy of mobile promotions as well for consumers. Fig. 1 exemplifies the differences between a push and pull strategy for mobile promotions.

This push-or-pull strategy of mobile promotions involves several key stakeholders that make up the ecosystem of mobile promotions. These stakeholders include consumers, retailers, manufacturers, and intermediaries. They are connected to each other by the mobile platform, through which mobile promotions are sent and received (pushed) or searched for (pulled). Regardless of whether mobile promotions are employed via a push or pull strategy, impulse buying has often been associated with negative post-purchase satisfaction (Rook 1987). However, the mobile medium can provide benefits that outweigh the potential negative consequences of impulse purchases and may thus boost consumer satisfaction. The benefits that these stakeholders gain from mobile promotions also come with risks, though, each of which may differ by stakeholder. Furthermore, a mobile moment – the period of time during which a consumer might view a push or pull notification – is much shorter than the traditional promotional medium of yesterday. This renders the mobile ecosystem to be more dynamic and delicate than earlier promotional media. In what follows, we detail the benefits and costs of mobile promotions for each stakeholder in the ecosystem. Table 1 summarizes these benefits and costs.

Consumers

Consumers are the most important stakeholders in the mobile promotion ecosystem since promotions are primarily designed for, directed to, and redeemed by them. For consumers, mobile promotions offer convenience. Because mobile devices are portable and connected, consumers can access mobile coupons more easily than paper ones. They can search for mobile promotions via coupon-specific apps, such as RetailMeNot, ShopKick, and Coupons.com (Consumer Reports 2013). Alternatively, consumers can opt to receive mobile promotions through SMS, QR codes, mobile barcodes, or push notification alerts from retailer or manufacturer apps. Due to their digital nature, mobile promotions eliminate the need to clip coupons from print media and are less destructible than traditional ones. Mobile coupons also offer consumers the convenience of timely delivery or accessibility since they are often delivered or searched for near the point of purchase, unlike the asynchronous nature of traditional coupons. Indeed, Kleijnen, de Ruyter, and Wetzels (2007) find that consumers consider convenience and

time-related gains to be important benefits of mobile services (for more on mobile shopper marketing, see Shankar et al. 2016). Image recognition software now allows consumers to shop online for items they find in print ads and capture with their cell phone cameras, enabling smooth transitions between the print and digital worlds (Tode 2014).

The conveniences that mobile promotions afford consumers increase when they are customized to consumer preferences, location, and timing. For instance, online retailer Amazon.com sends customized daily deal notifications to mobile users based on their shopping and browsing history (Hoffman 2015). For geo-based promotions, multiple technologies such as near-field communications, beacons, and GPS allow consumers to receive promotions when they are close to the promoted venues. This store proximity is a time-point at which consumers may be more likely to consider a mobile promotion and hence a purchase. Beacon technology enables retailers, for instance, to send consumers mobile promotions that include in-store maps to help them locate the promoted item. As such, the convenience of locating items and receiving customized coupons can help reduce the risk of potential negative post-purchase satisfaction consumers may experience from unplanned purchases.

Mobile promotions also offer consumers financial benefits through price-discounts. At-home, on-the-go, or in-store, consumers can quickly price-compare and either receive or find mobile coupons for items they wish to purchase. Other ways customers can derive value from mobile-related promotions include the non-financial currency potential of mobile data. For instance, McDonald's stores in the Philippines offer customers free access to text and chat apps with the purchase of a value meal (Barris 2015). Mobile promotions also present consumers with elements of discovery. In China, for example, when players of the Angry Bird mobile game are near a McDonald's restaurant, they receive an in-game promotion for McDonald's (Clarysse 2015). In Guatemalan malls, when shoppers approach competitors of a shoe store, a discount-app called "Hijack" offers them 'time-bomb' discounts that start at 99% off and drop by a percent for each second it takes recipients to reach the promoting store (Clarysse 2015). Mobile promotions can thus enhance the brick-and-mortar store experience of shoppers by seamlessly bridging the digital and physical world through surprise offers.

Consumers also derive social value from mobile promotions. Retailers such as Starbucks offer consumers location-based promotions for declaring their loyalty on social networks and status badges for checking into physical stores (Butcher 2010). Moreover, mobile promotions are replacing traditional punch-card reward systems with location-based Wi-Fi rewards, such as that of quick-service restaurant Subway, which rewards customers based on their number of visits, or the ShopKick app, which rewards consumers for entering department stores, scanning products, or even making purchases (Samuely 2015a). Mobile promotions may also be targeted at groups, especially as consumers often shop in groups and research has demonstrated peer effects on impulse buying, which may differ by culture (Luo 2005; Zhang and Shrum 2008). Group-use mobile promotions may even increase the gratification derived from their use due to the social element they

¹ We thank an anonymous reviewer for this point.

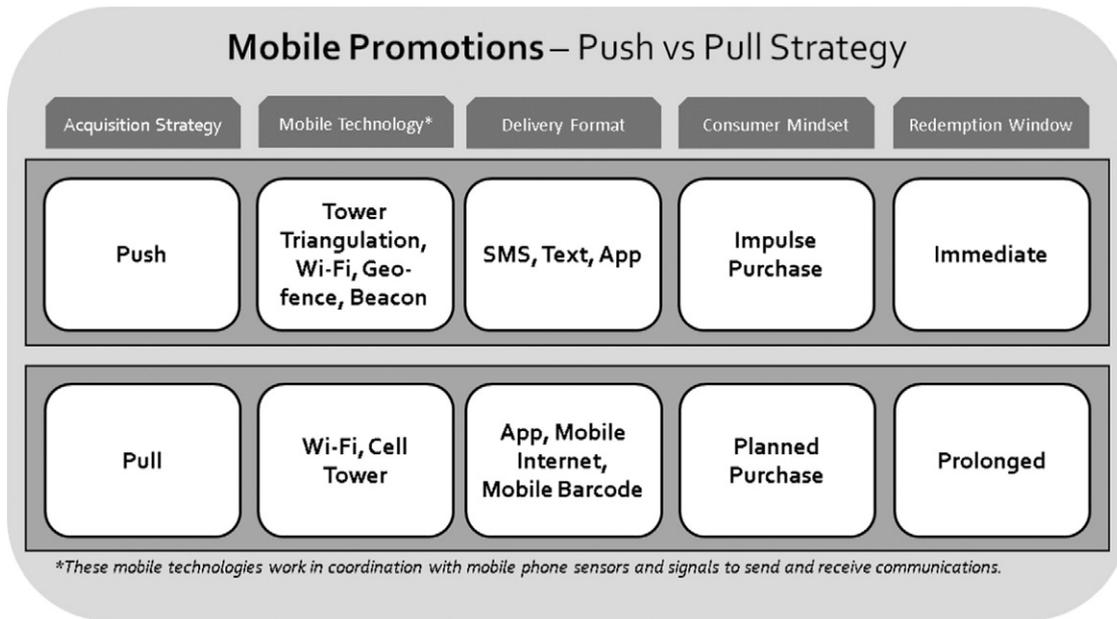


Fig. 1. Overview of mobile promotions.

foster, as yet another way to counter the potential negative consequences of impulse buying.

Mobile promotions can have downsides for consumers. For some, mobile coupons do not proffer ease of use. Opting to receive them, searching for them, and acting on or redeeming them can pose more challenges for some consumers than traditional print coupons, thereby diminishing the impulse buy potential of mobile promotions. Consumers now expect consistency in their omnichannel experience. Depending on the retailer, though, some consumers may not be able to continue shopping in the retailer’s online space, especially if only in-store pickup is available versus more convenient purchase options such as online ordering (Tode 2015).

More critically, consumers may perceive mobile promotions to be an invasion of privacy. This is because for consumers, their mobile devices are personal. Whereas consumers typically enter the retail environment, mobile promotions enable retailers to enter the consumer’s environment (Shankar et al. 2010). As

such, receiving targeted mobile messages from marketers and retailers may not be welcomed by consumers. This perceived privacy invasion may differ by culture; consumers in Asia are more accustomed to push-notifications from marketers than consumers in Europe or the Americas. Privacy perceptions may also differ by the type of service plan consumers have. In some countries, mobile providers offer consumers reduced-rate plans that are subsidized by marketers who push mobile offers to consumers several times a week. Consumer wariness may further increase as marketers begin employing recognition programs for more targeted mobile campaigns.

Another downside is that if consumers receive mobile coupons at the wrong time or location, they may find the coupons more annoying than convenient or pleasantly surprising. For instance, if a consumer receives a mobile promotion while shopping in a group, she may be less likely to capitalize on it if no one else in the group received it. Conversely, if individuals receive group-use mobile promotions when they are alone, they

Table 1
Benefits and risks of mobile promotions by stakeholder.

	Mobile promotion ecosystem stakeholders			
	Consumers	Retailers	Manufacturers/services	Intermediaries
Benefits	<ul style="list-style-type: none"> • Convenience • Price • Discovery • Social value • Reward 	<ul style="list-style-type: none"> • Boost consumer touchpoints • Boost store traffic • Cross-selling • Stimulate impulse purchases • Reward desired behavior • Efficient marketing spend • Manufacturer-funded marketing budget 	<ul style="list-style-type: none"> • Efficient marketing spend • Boost in consumer touchpoints • Access to consumer data • Co-op marketing spend 	<ul style="list-style-type: none"> • Aggregated shopper data • Efficient marketing spend between retailers and manufacturers/services
Risks	<ul style="list-style-type: none"> • Complexity • Privacy • Annoyance • Irrelevance 	<ul style="list-style-type: none"> • Alienate consumers via annoyance/irrelevance • Fraud prevention challenges • Privacy backlash • Price war • Incrementality • Brand devaluation 	<ul style="list-style-type: none"> • Fraud • Digital clearing 	<ul style="list-style-type: none"> • Attribution • Incrementality • Alternatives • Disintermediation

may also be less likely to redeem them. Another example of the potential that timing plays in mobile promotions is how long consumers have to redeem the promotion. Consumers who must plan for or travel to the venue for consumption may be less inclined to redeem the promotion the shorter the redemption window, while consumers close to the venue may be less likely to redeem a promotion the longer the redemption window.

Conversely, consumers may appreciate having longer redemption windows, which may in turn reduce their likelihood of experiencing the post-purchase dissatisfaction that follows some impulse buys. Scholars suggest that shorter time-windows may boost redemption likelihood by increasing the time urgency of the promotion (Danaher et al. 2015). Corroborating this, TGI Fridays recently combined social factors with a sense of urgency by offering free burgers to individuals who were the first to respond to their friend's posting of the m-coupon on social media (Samuely 2015b). Regardless of redemption window, however, the difficulty of storing a mobile promotion for the near-future has discouraged consumers from redeeming such promotions. To date, Apple Pass and Google Wallet are amongst the few apps that facilitate m-coupon storage for consumers (Colburn and VanBoskirk 2015).

Consumers may also experience overload by the amount of information, quantity, or frequency of offers they receive on their mobile device, which in turn may dampen their interest. This may be especially so when mobile promotions are sent from geo-fenced or beacon technology through a mass-target approach instead of a more selective one, or when multiple retailers in close proximity to each other launch mobile campaigns simultaneously. Some mobile promotions may also not be relevant for consumers. What consumers may consider today, they may not want tomorrow, and what may interest them in one location may not in another (Pasqua and Elkin 2013). Relevance is critical for mobile promotions, since more relevant promotions can increase the benefits of redemption and mitigate the dissatisfaction that may accompany unplanned purchases.

Retailers

Retailers are arguably the second most important stakeholder in the mobile promotion ecosystem because they are often the first and only entity with whom customers interact to redeem mobile coupons. For retailers, the benefits of mobile promotions are an increase in consumer touch points; this is especially the case as today's consumers pay more attention to their mobile devices than to radio and print combined (Thompson 2015). By helping to drive in-store traffic, mobile promotions can boost unplanned spending and unrelated but often high margin purchases (Ramanathan and Dhar 2010). Retailers such as Best Buy, H&M, and Central Market have seen increased foot traffic and click-through rates as a result of their geofence campaigns (Kats 2012; Tode 2013). Moreover, mobile promotions offer retailers the ability to poach customers of competitors through strategically-placed geofences. For instance, Fong, Fang, and Luo (2015) demonstrate how geo-fencing the potential customers of a competitor cinema can boost a focal cinema's ticket

purchases. The additional benefits of mobile promotions include cross-selling spillover effects of non-promotional items. Since mobile promotions are often for specific products, consumers may tend to buy other items during their store visit, increasing their in-store shopping time and overall shopping basket (Hui et al. 2013). Furthermore, mobile promotions enable retailers to reward desired consumer behaviors, such as through promotions for location-based loyalty.

Mobile promotions can facilitate more efficient marketing spending for retailers by targeting consumers nearer to the point of purchase, such as in their search journey or geographic proximity. These digital promotions can also boost efficiency by reducing the waste and costs incurred from free-standing inserts, print coupons, loyalty punch cards, and fraud such as fake loyalty punches or stolen loyalty cards or coupons. Moreover, retailers can reduce time costs since mobile campaigns can be launched more quickly than print ones. Costs may also decrease due to the private nature of mobile promotions; since they are less visible, mobile promotions render competitor monitoring and retaliation harder to realize (Fong, Fang, and Luo 2015). In addition, mobile coupons are cheaper than paper ones in terms of direct costs of product and distribution as well as environmental costs.

Mobile promotions can also reduce market research costs for retailers. Their use by consumers can provide retailers with critical analytics derived from digital recognition such as visit frequency, visit duration, dwell time, whether customers are new or repeat, how crowded the store is during their visit, their purchase time, amount, number, and variety, mobile carrier, where they were when they downloaded the promotion, and which customers pass the store but do not enter (Cha 2010; Samuely 2015a, b). This marketing spending efficiency is further enhanced when manufacturers share or fund the retail marketing budget.

The downsides of mobile promotions for retailers are similar to those for consumers. Mobile coupons risk alienating potential or current consumers through annoyance from over-pinging or irrelevance. These digital promotions also threaten consumer backlash for perceived privacy intrusions, especially when retailers attempt to personalize such promotions. In addition, retailers risk sending promotions that may be incongruent with consumer mindsets. For instance, Ramanathan and Dhar (2010) suggest that retailers who offer new and unique products, such as Trader Joe's, may benefit from offering "buy one get one" promotions with longer redemption windows because such retailers tend to prime a promotion focus in consumers. Conversely, retailers who carry well-known brands, such as Wal-Mart, may benefit from offering savings-framed promotions with shorter redemption windows since such retailers prime a prevention focus in consumers. The downside of sending relevant promotions for retailers, though, is that mobile devices can potentially increase consumers' shopping efficiency, which may decrease cross-selling spillover effects. However, as virtual assistants, mobile devices and the promotions received on them may boost customers' shopping experience satisfaction.

Another challenge of retailer-funded mobile coupons is preventing fraud. Whereas paper coupons are surrendered at the point of sale, digital coupons are not, rendering them easier to

reuse, which may harm the retailer's bottom line. Moreover, how mobile promotions are delivered may risk a price or promotion war from competitors of the focal retailer. For example, anyone who breaches the virtual perimeter of a retailer's geofence may receive a mobile promotion and thereby learn about that retailer's promotion. Thus, the privacy from competitors that mailers afford retailers may not always extend to digital coupons and can risk immediate competitive counteraction. In addition to competitive reactions, mere concurrent competitive actions via mobile promotions risk alienating consumers. For example, if consumers receive too many promotions through geofence or beacon-based campaigns during a single mall visit, they may be less inclined to consider a focal retailer's promotion (Hamstra 2014).

The issue of incrementality exemplifies another downside of mobile promotions. More specifically, some consumers may receive a mobile promotion who would have purchased from the retailer regardless. This is problematic for retailers given that many mobile promotions are location-sensitive. While on the one hand, consumers in the vicinity of a store may be more likely to enter and make a purchase with the encouragement of a monetary incentive, on the other hand their proximity to the store may reveal their preferences and thus additional incentives are wasteful for the retailer. In addition, retailers may experience conflict with manufacturers over the amount and type of mobile promotion to issue due to the risk of devaluing the brand. That is, promotions themselves risk decreasing the value of a brand when that brand is offered at a reduced price. Relatedly, mobile promotions can render brands more independent of retailers, endowing brands with stakeholder ownership within the mobile ecosystem.

Finally, the type of value retailers offer consumers in their mobile promotions may pose risks. For example, offering financial incentives incurs the risk of eroding the retailer's pricing strategy. Consumers may grow accustomed to discounted purchases from the retailer, which in turn may discourage them from buying at full price. On the other hand, non-financial value exchanges may not be enough to stimulate desired consumer behaviors. For instance, an offer of free Wi-Fi may have been more appealing when such service was not widespread, but may now have little appeal where it is commonplace. Thus, for retailers, while mobile promotions may be an efficient way to reach consumers, to be effective they must offer value to consumers beyond simply easier access to deals.

Manufacturers

Manufacturers also play a prominent, albeit less visible role in the mobile promotion ecosystem. For one, mobile promotions facilitate more efficient cooperative marketing spending between manufacturers and retailers, since digital coupons are cheaper to distribute. Also, similar to retailers, mobile promotions offer manufacturers increased consumer touch points, providing the manufacturer with another avenue through which to reach consumers. Most importantly, manufacturers may directly benefit from individual-level consumer data that mobile promotions can provide — data hard to acquire otherwise.

Service providers are amongst the manufacturers that are more visible in the mobile ecosystem. For instance, restaurants, hair salons, and movie theaters may leverage mobile promotions to stimulate sales. However, whereas manufacturer goods can be inspected prior to purchase, the same does not apply to services. Hence, mobile promotions for services may potentially instill doubt in product quality amongst consumers and incur lower redemption rates. Indeed, mobile promotions have been found to be more effective for some product types such as snack foods (Danaher et al. 2015). Nevertheless, the personal and ubiquitous nature of mobile technology can mitigate this impact. Consumers concerned with service quality can consult user-generated content, ratings, and reviews about service providers that are accessible through community-based mobile apps such as Yelp and Foursquare. Another aspect of mobile services is that the mobile network enables scaling of services to dimensions impossible with earlier technologies, which has significant implications for services such as mobile gaming (Hofacker et al. 2016).

For manufacturers, just as with retailers, the risks of mobile promotions include fraud. The digital nature of mobile coupons renders it hard for manufacturers and retailers to limit redeeming, sharing, and duplicating such promotions. Specifically, it is hard to prevent consumers from retweeting, reposting, or forwarding digital coupons, which in turn risks backlash when retailers and/or manufacturers refuse to honor them (Karolefski 2013).

Intermediaries

Lastly, intermediaries are increasingly important stakeholders in the mobile promotion ecosystem, especially as mobile promotions may be accessed through either a push or pull strategy. Intermediaries can help design, distribute, and redeem mobile promotions. For this reason, mobile promotions offer intermediaries the unique ability to aggregate shopper insights across promotions, customers, retailers, and manufacturers, especially if consumers search for or opt to receive mobile promotions via intermediaries. Thus far many jurisdictions require consumer opt-in, which potentially reduces the reach of push promotions. But for intermediaries, this challenge provides an opportunity: obtaining consumers' opt-in and thus providing retailers broader reach for sending mobile promotions.² That is, for many manufacturers and consumers, intermediaries provide the key for consumers to receive push-promotions from manufacturers. Indeed, intermediaries often have significantly larger organic audiences than manufacturers and retailers do, rendering them important players in the mobile promotion ecosystem. Moreover, because intermediaries offer a one-stop shop for coupons, they can build richer profiles of consumers such as their coupon search frequency, brand and category preferences, and price sensitivity (Clifford 2010). This ability enables intermediaries to deliver better value for, and facilitate more efficient marketing spend between, retailers and manufacturers. In addition, intermediaries can help amplify promotions

² We acknowledge an anonymous reviewer for this point.

to a subset of highly attractive shoppers who frequent their platforms.

The concerns that mobile promotions pose for intermediaries include issues of attribution. Intermediaries must demonstrate the value of their role in the ecosystem to manufacturers and retailers as well as customers in order to continue operating. In addition to attribution, intermediaries must also address issues of incrementality — delivering mobile promotions to consumers who would have purchased regardless. However, this revenue dilution risk appears lower for consumers contacted via an intermediary compared with existing customers contacted via the retailer's app. This is not as easy as it may seem. Connecting consumers with retailers demands balancing a concern for consumer privacy with retailer desire to deliver relevant mobile promotions. Catering too much to the latter group risks alienating the former group, which in turn would undermine the strength of intermediaries. Moreover, intermediaries are tasked with showing manufacturers and/or retailers the aggregation value and share of wallet their mobile promotions account for. This is especially key for intermediaries to demonstrate the value of their role in the mobile promotion ecosystem, above and beyond the alternative of traditional free-standing inserts or print coupons.

Finally, intermediaries may also worry about disintermediation as more manufacturers and/or retailers may consider issuing or providing access to mobile promotions themselves, which would eradicate the role of intermediaries. For instance, existing loyalty programs may be positioned as intermediaries for mobile promotions because they already have reach and opt-ins to broadly distribute such promotions. At the same time, the ability to reach more consumers than retailers is an important benefit that may protect intermediaries from disintermediation.³ The increase of direct shopping online such as through Pinterest or Google Now may also contribute to potential disintermediation.

Research Agenda

In this section we draw on the definition of mobile promotions, its distinctions from traditional promotions and mobile advertising, and the framework developed in the previous section to motivate a research agenda for mobile promotions. The goal of this research agenda is “to help stimulate research-generated insights towards the development of mobile promotions that enable long-term, value-enhancing relationships between consumers and marketers.” Given this mission, we develop research questions for each of the stakeholders in the mobile promotion ecosystem: consumers, retailers, intermediaries, and manufacturers. We structure this section in terms of research questions, focusing in turn on consumers (questions C1, C2, ...), retailers (R1, R2, ...), manufacturers (M1, M2, ...), and intermediaries (I1, I2, ...).

It may be useful to identify two ways in which mobile technology affects promotions for each of the stakeholders. One perspective is to focus on the data and metric generation capability created by the ubiquitous use of mobile technology.

That is, if mobile technology does not affect consumer behavior, what can marketers learn about consumers based on the data generated by mobile technology, and how can they use this data and attendant metrics? The other perspective is to examine how consumer use of mobile technology has fundamentally changed how they use mobiles to purchase and discuss products, and how these changes impact promotional activities by retailers, manufacturers, and intermediaries. With these perspectives in mind, we develop important and overarching themes that inform our research agenda, such as privacy–value tradeoff, return on investment, spatiotemporal targeting, media substitution, and channel power. Table 2 summarizes the research questions and themes for each of the stakeholders in the mobile promotion ecosystem.

Privacy–Value Tradeoff

Privacy is an important and oft-discussed issue in which consumer and other stakeholder interests do not always align. Consumers prefer to gain convenience value from transacting with retailers, but the increasingly detailed data that facilitates this value extraction is a double-edged sword: it enables stakeholders to potentially become more intrusive in targeting consumers with promotions. For example, Li and Pavlou (2014) conduct a field experiment to study the tradeoff between the value from network externalities and decreased privacy that consumers debate when deciding whether to register on a website. As firms increasingly gain access to detailed consumer mobile data, while consumers' waning mobile attention spans demand more relevant promotions, our first research question proposes that future research may consider: [C1] *To what extent will consumers derive value from negotiating with retailers and intermediaries over the terms of mobile promotions regarding personal data ownership?*

The twin features of the value extraction-intrusiveness tradeoff are central to privacy debates and gaining importance as mobile data is increasingly available on public and quasi-public networks. While ‘opt-in’ has been employed as the de-facto method to obtain

Table 2
Mobile promotion research themes and proposed research agenda.

Research themes	Mobile promotion ecosystem stakeholders			
	Consumers	Retailers	Manufacturers	Intermediary
Privacy–value tradeoff	C1	R1, R2		
Return on investment, customer loyalty, and cross-selling	C2	R3, R4		I1
Spatiotemporal targeting, proximity to purchase, and contextual marketing	C3	R5		
Mobile, multichannel behavior, social media, and inter-media substitution		R6, R7, R8	M1	
Channel power, disintermediation, and consumer power	C4, C5, C6			I2, I3, I4
International context				M2, M3

³ We thank an anonymous reviewer for this insight.

‘permission,’ many opt-in practices are not transparent. Consider the case of AT&T and Verizon’s use of super-cookies. These mobile carriers faced severe criticism for allowing partners to track consumers’ digital mobile footprints without consumer knowledge or explicit consent (Singer and Chen 2015). The unanswered question these practices reveal is: [R1] *How will retailers ‘pass-through’ privacy-value bundles from intermediaries to consumers?*

As privacy concerns garner increasing attention in national politics, mobile promotions will inevitably need to operate in a more legislated environment. These privacy issues beget the following research question: [R2] *How will potential privacy policy changes impact retailer investment decisions in mobile promotions?*

Return on Investment, Customer Loyalty, and Cross-selling

Mobile technologies are proving to be a liberating force not only for consumers but also for retailers. Effective CRM (customer relationship management) requires the collection and analysis of customer-level data, but implementing such systems has thus far been left to larger manufacturers due to the high costs involved. Thus, future research may investigate this question: [R3] *Will mobile loyalty programs provide competitive advantages for smaller retailers who compete with large retail chains?*

Mobile intermediaries such as Belly have expanded the scope of loyalty programs by reducing transaction costs of consumers to access the loyalty program, accumulate points, and redeem points for rewards. Yet, it is unclear whether this expanded scope pays off. Thus, we ask: [C2] *How will mobile loyalty platforms affect customer loyalty and switching behavior?*

Mobile intermediaries have also enabled retailers to track point progress for their customers, and exploit such data to build deeper relationships with consumers (Pancras, Venkatesan, and Li 2015). This leads to the following research questions: [R4] *What strategies can retailers use to drive impulse/upsell vs. planned purchases?* and [I1] *How will an increasing desire for loyalty solutions alter the mission of intermediaries as they seek new ways to drive value for their brand and retailer constituents?*

Spatiotemporal Targeting, Proximity to Purchase, and Contextual Marketing

A key advantage of mobile marketing is that it enables tracking and targeting of customers over both space and time. This allows for creative promotions that can access consumers at moments that were previously inaccessible, with promotions that are more relevant and thus valuable to consumers, and more efficient for marketers. An important research question from the customer standpoint thus becomes: [C3] *Will mobile enable consumers to use proximity-to-purchase to negotiate promotional benefits from retailers and intermediaries?*

Retailers and intermediaries can ascertain how receptive a customer would be to an appropriately-customized promotion over the spatiotemporal trajectory of the customer. For instance,

Ghose, Li, and Liu (2015) demonstrate how consumers’ trajectory path can help marketers deliver more relevant mobile promotions. Tracking and influencing the customer’s proximity to purchase are enabled by spatiotemporal targeting strategies such as geofencing (Luo et al. 2014), geoconquesting (Fong, Fang, and Luo 2015), and Wi-Fi technology (Ghose, Li, and Liu 2015). While multiple technologies such as near-field communication and beacon technology enable these mobile promotion strategies, digital spatial footprints of mobile phones enable even more contextual geo-spatial behavioral targeting. Moreover, these examples illustrate how the radius of point-of-purchase promotions and unplanned purchases, traditionally only in-store, is now increasing to out-of-store opportunities as well.⁴ By gaining a better understanding of consumer intent from their mobile trajectory paths, mobile marketers may be able to deliver more contextual mobile promotions to consumers, which in turn may reduce the potential dissatisfaction that results from impulse purchases. However, marketers still need user-specific location information to change behavior with spatiotemporal-targeted promotions. This leads to the following research question: [R5] *Will geofencing and geoconquesting increasingly move beyond the retail store to other co-promoting or intermediary locations to exploit contextual targeting?*

Mobile, Multichannel Behavior, Social Media, and Inter-media Substitution

Since the explosive growth of the Internet in the late 1990s, traditional media was predicted to give way to the new medium. Today, the same rhetoric applies to the transition from computers to mobile devices. It is nevertheless clear that the interaction of existing media and new media is complex, with customer heterogeneity in terms of media-mix preference playing a key role in the effectiveness of promotions using the new medium. An avenue of further inquiry is: [R6] *What factors will determine the shift in investment in promotional media spend from print to mobile?*

From the retailer’s point of view, it is critical to understand how quickly the gap between metrics such as the ‘number of eye balls,’ which is mobile-heavy, and media spend, which is still print-heavy, will close. Interestingly, consumers have adapted to using both online and offline media through showrooming (using physical stores as showrooms for virtual store purchases made online) (Zimmerman, 2012) and ‘ROBO’ (research online, buy offline). This begs the question of how retailers will react to increasing showrooming or ROBO behavior (Liu 2013; Mehra, Kumar, and Raju 2013). More specifically: [R7] *How will the effectiveness of mobile promotions be impacted by arbitraging consumer behaviors (such as showrooming and ROBO) across offline and mobile devices?*

The retail chain Target, for example, has attempted to tackle this issue by meaningfully differentiating the goods and services available for sale through physical and mobile channels. Thus, it is logical to ask: [M1] *Can manufacturers leverage intermediaries to optimize co-op spend with retailers?*

⁴ We thank an anonymous reviewer for this point.

With the rise of social media, mobile-enabled social word of mouth will increasingly be trusted by consumers, leading providers of retail services especially to offer value and thus differentiate themselves from competitors. This lead us to ask: [R8] *To what extent will social media user generated content help retail service providers to differentiate themselves from competitors compared with retailers of manufactured goods?*

Channel Power, Disintermediation, and Consumer Power

Mobile promotions have generated thriving businesses for specialized intermediaries that offer promotional services such as Belly, Punchcard, and RetailMeNot. However, mobile technology threatens the business model of intermediaries in two ways. The first is the traditional threat of disintermediation by upstream players who may control access to the information on which the intermediary is reliant for their business (e.g. Pancras and Sudhir 2007). Thus, [C4] *What will be the impact of mobile transaction information on the promotional dilemma result?* and [C5] *To what extent will consumers use location-based promotions to reduce promotion frictional costs?* are questions future research may consider.

A second threat is that of consumers forming co-operative networks by using their mobile social graphs and negotiating directly with retailers and manufacturers (Ailawadi et al. 2009). Formally, we ask: [C6] *To what extent will consumers use social networks to reduce promotion frictional costs through sharing information about relevant promotions?*

Such negotiation with the upstream members of the ecosystem over mobile promotions may be analogous to a downstream disintermediation that is beginning to be significant in content markets (Waldfogel and Reimers 2015). Along this line, the question becomes: [I2] *How can intermediaries help brands solve key issues of digital clearing and fraud prevention?*

Other relevant issues in this context include how mobile promotions will affect mobile payment system penetration and digital fraud prevention. These issues lead to the following questions: [I3] *How can intermediaries effectively position themselves as part of the transaction process and avoid disintermediation by retailers?* and [I4] *To what extent will intermediaries use mobile promotions to increase penetration of mobile payment platforms?*

International Context

Penetration of mobile phones and smartphones has increased globally. In many economies consumers leapfrog the adoption sequence of starting with computers, networking through the Internet, and then moving to mobile networks through smartphones. Instead, many consumers skip buying computers and adopt smartphones, embracing the easy-to-use features and apps. Jensen (2007) showed how adoption of mobile phones by fisherman and wholesalers in Kerala, India reduced price dispersion, waste, and adherence to the ‘Law of One Price’ (which holds that price differences between markets should only reflect transport costs between them).

On the one hand, the increasing adoption of smartphones and mobile phones internationally suggests that multinational firms will have more opportunities to launch global promotions appropriately modified to local conditions. Thus, we ask: [M2]: *How can mobile promotions be coordinated across international markets while remaining optimized for local needs and conditions?*

On the other hand, local companies more in tune with local market needs will also have opportunities to grow rapidly, given the low marginal costs and potential for scaling up operations in the mobile market. Examples of such local companies posing major challenges to multinational firms include Flipkart (a major competitor of Amazon India) and Micromax (a competitor of smartphone manufacturers such as Apple and Samsung in India). These considerations lead to the following research question: [M3]: *What advantages will local competitors have over multinationals in terms of knowledge of local promotional needs?*

Summary and Conclusion

Mobile technology is expanding the scope of promotions by increasing access to consumers for supply-side stakeholders in the mobile promotion ecosystem. This has resulted in important implications for several dimensions of promotions from the supply side perspective. The use of mobile technology has also lead to significant changes in how consumers view and use promotions. Promotions are featuring more prominently in shopper behavior and the greater access to consumers by stakeholders, strategic interactions amongst the stakeholders, and greater consumer adoption of the mobile promotion platform have produced a rich set of research issues.

This paper attempts to develop an agenda to study these issues by developing a framework of the mobile promotion ecosystem and identifying a set of research questions organized under overarching themes from the perspective of the different stakeholders in the ecosystem. These questions can be studied with a multitude of research approaches and avenues. Perhaps the most promising of these include large-scale field experiments, which are becoming increasingly possible with the widespread use of smartphones. Appropriate secondary data may also be leveraged to study some of these research questions. We hope this work serves as a useful reference on mobile promotions and as a springboard for future research on mobile issues.

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