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Mobile marketing: A literature review on its value for consumers and retailers

Roger Ström [a], Martin Vendel [b], John Bredican [c,*]

[a] Halmstad University, Spetsvinkelgatan 29, SE-302 50 Halmstad, Sweden
[b] Department of Industrial Engineering and Management, Royal Institute of Technology (KTH), Lindstedtsvagen 30, 100 44 Stockholm, Sweden
[c] ISC Royal Holloway, University of London, Wetton's Terrace Egham Hill Road, Egham TW20 0EX, United Kingdom

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ABSTRACT

The article describes the existing knowledge of how mobile marketing can increase the value for consumers and retailers. Mobile device shopping, and consumers' use of mobile devices while shopping is shown to be both an extension of consumers' shopping behaviours developed on Internet-connected desktop and laptop computers (PC), and potentially new behaviours based on a mobile devices' uniquely integrated features such as camera, scanners and GPS. The article focuses on how mobile marketing creates value for consumers and retailers, enabling more precise research and development of managerial concepts and tools while providing both managers and academics with increased understanding of mobile marketing and its value outcomes for retailers.

1. Introduction

Mobile devices and mobile applications offer retailers more than just the opportunity to exploit a new channel to reach customers. Mobile devices offer opportunities to combine information search, phone functionality and interaction while shopping in-store or using a product. A mobile device is a constant companion to the consumer, a gateway to a relationship between the consumer and the retailer, making it an ideal supplementary channel for distance selling and physical retailing (Shankar et al., 2010). An industry study showed that half of US mobile consumers are mobile device shoppers, 10% heavy and 40% light users (Leo Burnett and Arc Worldwide, 2011). But mobile devices are different from desktop and laptop computers (PC) due to a limited keyboard and screen size (Mahmoud and Yu, 2006), and offer functions such as camera, scanners and Global Positioning System (GPS). This makes mobile marketing potentially different from PC Internet and traditional marketing. The Mobile Marketing Association definition of mobile marketing is "a set of practices that enable organizations to communicate and engage with their audience in an interactive and relevant manner through any mobile device or network".[1]

The major impacts of the Internet on retailing are the reduced search costs for the consumer (Bakos, 1997; Lynch and Ariely, 2000), an increasing variety of products offered (Brynjolfsson et al., 2003) lower prices (Brynjolfsson and Smith, 2000), empowering consumers to make better choices for themselves, and increasing the relationship with the purchased brand after purchase (Edelman, 2010). As an example, Court et al. (2009) found that 60% of consumers of facial skin care products conducted online research after purchase. But in purchasing situations when consumers want an experience, a product trial, in-store atmosphere, or interaction with a salesperson, the Internet distance selling falls short of expectations (Daugherty et al., 2008).

In conceptual studies, the additional value created by mobile services for consumers derived from being accessible independent of time and place (Balasubramanian et al., 2002; Chen and Nath, 2004), and being customized based on time, location and personal profile (Figge, 2004), self-ascribed roll categories (professional (on duty), private (off duty)) and stance categories (busy, time on hand, waiting) (Dholakia and Dholakia, 2004). According to Kumar and Zahn (2003), the real business drivers for mobile technology were customer interaction and operational efficiency, potentially increasing retailer effectiveness and efficiency. Conceptual studies presented suggestions on mobile marketing value chains consisting of several activities performed by multiple actors (Barnes, 2002; Buellingen and Woerter, 2004), improving communication and sales (Mamaar, 2003; Shankar and Balusbramanian (2009)). However, the consumer's role as a co-creator of value was neglected in these studies. For instance, Prahalad and Ramaswamy (2003), see much of future innovations spurred from consumers involvement in co-creation of value. An assumption is that mobile marketing may serve as a tool for involving consumers in co-creation activities

* Corresponding author. Tel.: +44 20 7374 2276, mobile: +44 779 958 8484.
E-mail addresses: Roger.Strom@hh.se (R. Ström), martin.vendel@indek.kth.se (M. Vendel), John.Bredican@rhul.ac.uk (J. Bredican).

[1] http://mmaglobal.com/wiki/mobile-marketing (2011-12-21).

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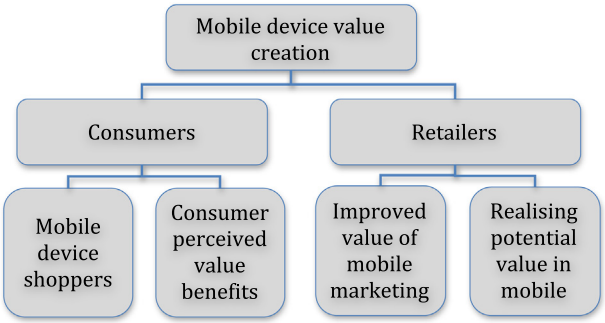

Fig. 1. Discussion topology.

independent of time and place. Value for consumers is then assumed to drive adoption, use and loyalty to retailers' mobile marketing applications, and then affect recruitment and loyalty to the firm.

Based on the above there are some concerns that require discussion. Unexplored questions include: who are the mobile device shoppers, what is the value of mobile marketing for retail consumers, what is the value of mobile marketing for retailers, and how can retailers realize the potential of mobile marketing? The purpose of this study is to describe existing knowledge on how mobile marketing can increase value for consumers and retailers. Value for consumers is assumed to drive adoption, use and loyalty to retailers' firm and mobile marketing applications, and recruitment. These factors create the foundation of competitiveness for retailers (Porter, 1985). This paper will proceed as follows: the methodology of the literature search is presented followed by the literature review. Next, the findings of the review are discussed. Finally, conclusions, managerial implications and implications for further research are presented. Fig. 1.

2. Methodology

A preliminary literature search was conducted during April 2010 using the ISI Web of Knowledge database. The literature search was limited to peer-reviewed journals and was based on keywords such as: "mobile marketing", "m-marketing", "mobile commerce", "m-commerce", "mobile advertising", "m-advertising", "mobile loyalty" and "m-loyalty". The 50 most cited articles were selected (cited five times or more). Several conceptual studies and some best demonstrated practice/output value studies covered topics as mobile value creation and mobile value chains, while a limited number of studies were related to consumer perceived value in mobile contexts.

An additional literature search was conducted during September and October 2011, using the ISI Web of Knowledge database with the above search words in combination with "value", "value chain", "strategy" and "perceived value". A search was also conducted in International Journal of Mobile Marketing and International Journal of Mobile Communications, as the majority of articles covering mobile marketing were published in these journals (Varnali and Toker, 2010). Assuming differences in consumer behaviour on a more general technology level (devices and services) compared to the specific mobile marketing level, the search was expanded due to the low number of studies. Search words of closely related constructs to perceived value such as "attitude", "perceptions", "satisfaction" and "trust" were used in combination with the search words from the 2010 search. A total of 64 empirical studies were selected for a qualitative content analysis, categorized based on research themes, and then discussed within and between categories. For an overview of the reviewed studies see Tables A1–A4 in Appendix A.

3. Literature review

In this review, value creation in mobile contexts are described from both a consumers' and the retailers' perspective as the value of mobile marketing for consumers, and the value of mobile marketing for retailers. The value of mobile marketing for consumers is further divided into mobile device shoppers and consumer perceived value benefits and sacrifices of mobile marketing. The value of mobile marketing for retailers is divided into the improved value of mobile marketing, and realizing potential value in mobile marketing.

3.1. Mobile device shoppers

Two studies from the Japanese market revealed segments of mobile and fixed internet users (Okazaki, 2007b; Okazaki and Romero, 2010). The studies were based on surveys only. Adding mobile Internet clickstream data to the surveys would have increased the knowledge of the segments detailed usage of mobile Internet and may have resulted in even more narrow segmentation models. Though the studies identified segments of different usage levels of mobile pull advertising users, it revealed limited knowledge about mobile device shopping behaviours.

Mahatanankoon et al. (2005), identified valuable m-commerce operation modes and potential consumer-based applications. Applications of a certain interest for mobile device shoppers seemed to be content delivery (searching and receiving information about retailers, assortments, brands, prices etc.), transaction-based (order and payment services), location based (receiving personalized, location based and time sensitive offers, advertising, map and route to closest store (GPS Location), finding products in-store and usage instructions). Other mobile functions, potentially valuable for mobile device shoppers, may be memory support (shopping lists, pictures of products and brands and bookmarks on web browsers), administration of loyalty benefits, and sharing of information and content. This additional functionality drives different behaviours as there are more uses for the device as compared to a PC or Internet website. The camera function used for comparing products, scanning, or using GPS location or using apps that augment the experience and provide additional information. So, at times it could be a companion to another channel, for example the retail store; or it could be the channel that a user is most engaged with at the time. The value lies in providing a satisfying experience.

Okazaki (2007b) suggested that Japanese mobile Internet users could be classified into three segments in terms of their demographics and life-styles. The literature also indicated that mobile device shoppers might be further segmented based on multiple variables (Table A1). The only segment that seemed to fit into the classification of mobile device shoppers were students and young unmarried office workers, as they exhibited higher usage of mobile Internet and using mobile pull advertising to a higher degree to search for new information.

Okazaki and Romero (2010) also identified segments of dual Internet media users. Four different Internet user segments in the Japanese market were identified: segments of moderate fixed and mobile Internet users, heavy fixed Internet users, and two segments of heavy mobile Internet users. Among the heavy mobile Internet users one segment was also heavy dual Internet users, while the other segment only used Fixed Internet moderately. The dual Internet users were of certain interest as it indicates that mobile device shopping was a learnt behaviour from fixed Internet

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PC, and potentially developed by other mobile experiences (Table A1). The results from Okazaki and Romero (2010), also indicated that PC Internet might be used for recruitment of mobile device shoppers in markets with high fixed Internet penetration and high fractions of dual media users.

3.2. The value of mobile marketing for consumers

Value is the benefits offered by the product or service compared to customer sacrifices for acquisition and use of the product and service relative to competition (de Chernatony et al., 2000; Ulaga, 2003; Walter et al., 2001; Zeithaml, 1988), and differs based on consumer product experiences (Parasuraman, 1997). Perceived value affects acceptance and use of mobile technology, services and marketing and loyalty to mobile services and marketing (Table A1). In several studies related to mobile marketing value for consumers, perceived value was not explicitly measured. But the majority of the studies measured components of benefits and sacrifices. Studies of consumer mobile marketing adoption used the Technology Acceptance Model (TAM) by Davis (1989), the Theory of Reasoned Action (TRA) by Fishbein and Ajzen (1975), the Theory of Planned Behaviour (TPB) by Fishbein and Ajzen (1975) and Rogers (1995) innovation attributes. Studies of consumers' mobile advertising use were mainly based on Media Gratification Theory (Atkin, 1973), adopted to mobile media (Tsang et al., 2004) and affecting attitudes, mobile media behavioural intent and behaviour. The TBP model included evaluations of benefits and perceived risk, media uses and gratifications theory (Okazaki, 2007b), included media benefits and perceived irritation. In some perceived value studies a similar construct to ease of use in the TAM model was used as a sacrifice construct (Kleijnen et al., 2009).

3.3. The perceived value of interactivity in mobile contexts

The perceived value of mobile marketing for customers was based on the additional value complementing or substituting PC Internet (Okazaki and Hirose, 2009) in user situations where PC internet is not accessible or practical to use, for example by adding interactivity to promotions, channels and products by mobile marketing (Sultan and Rohm, 2005). Interactivity is defined as different forms of interactions between individuals and groups either directly or mediated through digital platforms or media. The degree of interactivity is defined through the degree of two-way communication, synchronism and participants' active control over the experience (Liu and Shrum, 2002). For mobile contexts Gao et al. (2009), proposed additional of constructs such as connectedness (being linked to more resources), playfulness and interpersonal communication (communication taking on some characteristics of interpersonal communication). Results show that increased response options in mobile push advertising, increased playfulness and customization options in mobile game advertising, resulted in increased perceived interactivity and positive attitudes towards mobile push advertising and game advertising. The results also imply that the higher perceived interactivity in mobile communication the better (Gao et al., 2009). This may be relevant for game and content providers and to some extent for mobile push media, the least interactive mobile media. But for retailers who have to balance between supplying customers with enough information to fill their information needs, and then minimizing interactivity to increase conversion, this view needs to be modified.

3.4. Perceived value, consumer's goals and retailers outcome value

When measuring the effects of interactivity on consumer perceived value, an important factor is to consider what goals consumers have when using interactive functions. As an example, Moe (2003) found that the average conversion rate for an e-commerce site was 1.25%. Using clickstream data (customers' navigation traits on a web site) and clustering customers based on their goals from visiting the site, five different customer segments were identified based on if their search behaviour: first, goal directed immediate purchaser, second, goal directed future purchaser, third, hedonic immediate purchaser, fourth, hedonic future purchaser, and finally, just landing on the website and then directly leaving, so not considered to be as customer at all. As a consequence of consumers' different goals visiting the site, the conversion rate varied. Goal directed customers considering a more or less immediate purchase had a conversion rate between 8% and 13%, while hedonic browsers had a conversion rate of 2%. These results indicate that retailers' need to measure the quality of visitors to their web site and customize content, design and interactivity based on consumers' goals, interests, product and brand experiences, and loyalty. The perceived value for consumers to be loyal to a website appears to come from learning effects, reduced perceived trust and trust in retailers' website. If this kind of "stickiness" of websites is valid for retailers' mobile marketing, then consumers' accumulating use may potentially and gradually improve consumers' brand relationships, traffic to store, and purchasing volumes.

Media Gratification Theory (Atkin, 1973), considers customers having different motives, utilitarian or hedonic, when using a media. As an example the most cited studies of consumer adoption of mobile device and service, were highlighting the importance of utilitarian benefits and hedonic constructs of fun (Bruner and Kumar, 2005; Nysveen et al., 2005) and expressiveness (Nysveen et al., 2005). Most of the reviewed studies also verified that customers perceive utilitarian or hedonic values (or value tendencies or benefits) based on their goals using mobile services (Table A1). The majority of the studies focused on mobile push advertising use (Table A4), the least interactive mobile media. The starting point for these studies are that customers are more or less forced to be exposed to mobile push advertising, and then the perceived values of these forced exposures were measured. Fewer of the reviewed studies focused on mobile pull media as mobile Internet (Table A4). Neither of these studies considered consumers individual goals based on interests, category and brand experiences, nor was the time frame of conversion and loyalty considered. As a consequence the path between consumers' individual goals, perceived value and retailers' outcome value were not verified in mobile contexts.

3.5. Consumer perceived values, benefits and sacrifices of mobile marketing

Several results verified mobile service values or benefits as utilitarian, emotional, social and monetary value. A few comparative studies revealed results about which perceived values that affect consumer preferences for mobile media compared to PC Internet (Tables A1 and A2). For mobile services perceived values varied based on situational value and novelty value. Situational value affected utilitarian, emotional, social and monetary value, while novelty value only affected emotional and social value for both information and entertainment services, and monetary value for information services (Pilström and Brusch, 2008). The relative importance of perceived utilitarian and emotional values also seemed customer segment and category specific (Table A1). In this early stage of retailers' mobile marketing implementation, the perceived values and benefits of mobile marketing may affect retailers' brand positioning according to the results of Okazaki et al. (2007).

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3.6. Perceived utilitarian values and benefits

The major, but not always the dominating importance of utilitarian values and benefits in mobile contexts were shown in several studies contributing to the adoption and use of mobile devices, services and marketing. Convenience value was important for the use of utilitarian mobile retail categories as financial services and consumer loyalty to information services. Content reliability and quality also had a strong effect on loyalty to mobile services and marketing. Convenience value and content relevance could be increased by customization, making mobile services and marketing less cumbersome for consumers to use. Customization also affected adoption, use, purchase intentions of mobile marketing (Table A1). According to these results, retailers' use of clickstream data, personal profiles and customer purchase history with mobile marketing may increase customization, convenience value, and potentially increase the competitiveness of retailers' mobile marketing over time, creating loyalty to retailers' mobile marketing. Another example of simplification of data input methods is Japanese firms' adoption of quick response industrial codes (QR codes). By scanning this code, customers could automatically jump to a target mobile web site without typing in the full web address (Okazaki and Romero, 2010).

For mobile push advertising credibility was the most important utilitarian benefit affecting adoption and use, with less important weight on content relevance. Information and credibility were the most important benefits affecting use of mobile pull advertising. The importance of credibility on consumer use of mobile advertising, created advantages for well-known brands, and in existing consumer relationships, or if consumers' had trust in mobile advertising (Table A1).

3.7. Perceived emotional values and benefits

The major importance of emotional values in mobile contexts was highlighted in several studies affecting adoption and use of mobile services and devices, and loyalty to entertaining and enjoying mobile services. The relative importance of entertainment benefits on adoption and use was category specific; hedonic categories and mobile pull advertising. But entertainment benefits were not as important for mobile pull media, though interactive and/or multimedia advertising were perceived as more informative, entertaining and less irritating. Emotional values were realized in different manners in mobile contexts (Table A2).

3.8. Perceived social values and benefits

Social values effect on adoption and use of mobile services showed discrepancies. Some results indicated low significance of social values effect on adoption and use of mobile services. Instead social benefits and values seemed to influence adoption and use indirectly. Other results showed perceived social usefulness had a major impact on perceived usefulness for SMS advertising. Subjective norms had a significant positive effect on adoption intent on mobile marketing in a few studies. Social value also had some affect on consumer loyalty in terms of word of mouth and willingness to pay premium prices, especially for entertainment services (Table A2).

3.9. Perceived sacrifices

The main sacrifices for consumers to adopt and use mobile services and marketing were surprisingly not perceived risks, except for more advanced mobile device shopping behaviours, such as mobile device distance shopping and information disclosure in Location Aware Marketing (LAM) systems. Instead efforts to learn and use the mobile services and marketing were the main sacrifices for consumers (Table A2).

The importance of monetary costs on perceived value of mobile services differed. Monetary costs did not appear to dominate perceived value orientations in the mobile field, except for in studies using samples dominated by students (Table A2). As previous results indicated that mobile device shoppers seemed to be more affluent, monetary costs for mobile services may be assumed to have a lesser impact on these consumers' value perceptions. For more price-sensitive consumer groups' mobile service costs can be a barrier to adopt a mobile device shopping behaviour.

Perceived irritation was the main sacrifice affecting mobile advertising use, especially for mobile push advertising (Carroll et al., 2007; Okazaki, 2007b; Tsang et al., 2004). Comparing MMS with SMS, multimedia appeared to have positive effects on informativeness and entertainment. But perceived irritation was higher for multimedia push advertising (MMS) because of distraction and cognitive overload (Xu et al., 2009), partly contradicting the results of Cheng et al. (2009), who found MMS less irritating than SMS. Integration of SMS and multimedia pull advertising as mobile websites, seems like a straight forward approach to minimize consumer irritation of mobile pull advertising while combining multimedia effects on informativeness and entertainment.

Consumers' negative perceptions of mobile push advertising could be changed if permission was obtained, or if service provider filter messages. Frequency of messages received also effected perceptions of mobile push advertising, as timing of messages, increasing content relevance through personalization, or if the advertisements were sent from a friend or community. Finally, the value perception of mobile push advertising and intentions to receive mobile push advertisements could increase by adding incentives (Table A2).

3.10. Comparative perceived values and benefits

Consumers perceived media image and gratification opportunities differently, this explains consumer's preferences for one media compared to others (Okazaki and Hirose, 2009; Okazaki and Romero, 2010). Mobile Internet users perceived mobile devices as enjoyable and timely, recognizing their three primary benefits: convenience (flexibility in terms of time and location), companionship and efficiency compared to the PC. Media switching between mobile and PC Internet could be explained by the mobile Internet functioning as a complementary media to fixed Internet in high involvement situations, while mobile Internet functioned as a substitute in lower involvement situations.

Efficiency, convenience and safety were the most important benefits determining differences in customer value perceptions between PC Internet and mobile devices in banking. Due to the limited keyboard and screen size of the mobile device, Internet banking provided higher convenience in dimensions related to speed, ease of service use and safety aspects as uncertainty in service consumption compared to mobile banking. Convenience and safety aspects called for simplification of data input methods, when the service was used via a mobile device. Mobile banking is perceived as more efficient based on service access independent on time and place. It enables immediate action, saves time, which are valuable benefits for time conscious consumers. For self-service consumers, user control over the service delivery process affected utilitarian value perceptions (Table A2). For time conscious and self-service consumers mobile financial services increased value, meaning that consumers could be segmented based on service level and channel preferences in the service

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delivery process (Kleinen et al., 2009), potentially increasing satisfaction and brand loyalty.

3.11. The value of mobile marketing for retailers

According to Porter (1985) value from the firm is represented by a series of activities and processes, a value chain, providing the given level of value for consumers. The value the firm can create for its consumers helps form the foundation for the firms' competitive advantage, resulting in higher margins. Sustainable competitive advantages built on substantial, scarce or unique resources and competences integrated in the firms' value chain create barriers for direct competition. Mobile marketing is assumed to function as a tool improving activities in retailers' value chain, indicated to improve consumer communications, service interactions resulting in improved output value and potentially higher margins. The improved output value was both related to transaction-based results as traffic to stores and sales, and brand relationship results in brand awareness, associations, attitudes, purchase intentions and loyalty. Results also indicated the potential to increase service quality, perceived value and satisfaction using mobile marketing in-store during service interactions, creating the foundations for increasing consumer loyalty to retail brands. The loyalty effects of mobile marketing were, however, less studied (Table A3). If consumers' post purchase interactions with purchased brands are a contact point of increasing importance strengthening the consumer and brand relationship, then mobile marketing may become an important tool for consumers supporting such interactions. Further, if loyalty also spurs consumers' willingness to participate in viral mobile marketing, the viral effects may serve as one out of several indicators of consumer loyalty. The viral effects may also result in increased branding and sales effects, both decreasing contact costs, while the willingness of receivers to access viral content is higher than for firms' mobile push advertising.

Retailers' perceived values of mobile marketing are based on outcome benefits, process benefits, and monetary and non-monetary sacrifices. Retailers' adoption and use of m-advertising services differed by how they perceived benefits, and value and differences in user's participation in value co-creation. The more the users participated the more value they seemed to perceive. Finally, retailers' adoption and use of m-advertising services differed based on cultural differences measured as nationality. Firms' perceptions of how improved outcome value could be achieved by mobile advertising, came from the use of location based marketing supporting the branding strategy, and were depending on facilitating conditions, restrained by security or privacy issues and costs (Table A3). The analysis of consumer perceived value confirm that mobile marketing supports consumer processes as pre-purchase, service interactions and sales in mobile channels. Studies based on a firms' perspective were focusing on mobile marketing as an advertising tool with two exceptions (Table A4).

3.12. The improved value of mobile marketing

Lee et al. (2007), regarded mobile marketing as a tool for front-line staff improving person to person interactions between insurance agents and consumers, defined as internal mobile marketing. Based on these results the potential value of mobile marketing for retail front-line staff include: increased efficiency and effectiveness in service interactions, increased work capacity and service quality, and increased capacity to match consumer needs by providing information services about products and product use. Using the same logic, in-store mobile marketing to self-service consumers may increase effectiveness and efficiency of service interactions, limiting the need for staff interactions while still completing transactions of high-perceived value.

Nysveen et al. (2005a) verified mobile push media as a tool to improve consumer brand relationships between purchases or interactions. These are measured as brand satisfaction and relationship investments. Even more interesting for retailers was that mobile push communication also fostered main channel use. By adding mobile marketing, retailers may increase loyalty to a store network, using mobile push media to drive traffic to mobile pull media, as the higher interactivity and media richness were more effective creating category and branding effects (Table A3).

Several studies covered mobile advertising effectiveness, the outcome value of marketing activities in the value chain, mobile push advertising, mobile pull advertising, and cross-media effects of mobile push and Internet pull advertising (Table A4). Results indicated improved outcome value, requirements for realizing these values and a few indications of relative improved outcome value of mobile advertising (Table A3). As a consequence there is a knowledge gap covering the effects of in-store and post-purchase mobile pull marketing. Another gap is the indirect affect of mobile marketing on other activities in the retailers' value chain. For instance, possibilities to increase campaign frequency may increase the demand for improved purchasing and logistics.

Early results showed high acceptance of mobile pull advertising (SMS), response rates, and purchase intentions, by far exceeding the results of direct marketing, while the branding effects were more moderate to low. Mobile push media may substitute traditional direct marketing investments to some consumer segments increasing communication effectiveness for high and low involvement categories for both products and services. Mobile pull media showed high interest in category and branding effects (Table A3). This points to a need for greater integration of mobile pull media with mobile push media.

3.13. Mobile marketing integration

In a limited number of studies the importance of integrated marketing communication is highlighted (Table A3). Reasons for cross media integration were consumers' increased engagement in processing messages, as they perceived stronger message strength from the messages and exhibited stronger brand attitude with enhanced media engagement (Wang, 2007). Note that Wang (2007), evaluated cross-media integration between SMS messages and PC Internet website, and similar cross-media effects are probably achieved by integrating mobile push and pull media. These results indicated stronger effects on brand perceptions among consumers integrating mobile push and pull advertising, and a potential for increasing consumer recruitment and loyalty. Examples of successful integrated mobile marketing were improving category and brand building, driving traffic to store, increasing sales, while outperforming off and on-line advertising (Kim and Jun, 2008). Suggestions to integrate mobile media with off and on-line media (Sultan and Rohm, 2005), created opportunities to capitalize on traditional medias' high reach and impact with mobile medias' possibilities to interact with individuals and thus drive traffic to store. For higher involvement categories, mobile media integration with low location dependency media (TV, magazines, PC Internet) may be suitable, as it can support more planned purchasing behaviours, while integration with high location dependency media (billboards, out of home media use) may be more suitable for less planned purchasing behaviour, or for purchasing behaviour where choice of brand or retailer is decided close to purchase. Suggestion to integrate products, packages and mobile marketing to support consumers' decision making in-store and influence sales with in-store mobile coupons (Sultan and

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Rohm, 2005), may be valid for post-purchase interactions supporting consumers' use and knowledge of products and brands.

3.14. Realizing potential value in mobile marketing

To summarize previous chapters mobile marketing seems to add most value to mobile device shoppers and retailers if it is fully integrated in consumer interfaces, adding interactivity to all consumer contact points or substituting some contact points with mobile marketing. In this case, and previously discussed, retailers' marketing strategies may be affected, such as segmentation and targeting, market communication and channel integration. Mobile marketing may also affect brand image and positioning, offerings, assortments and prices, however less covered by the reviewed studies.

Instead a limited number of studies presented findings on describing best demonstrated practice on how to implement successful mobile advertising from a single media or channel perspective, and how firms could realize potential in mobile marketing, and resources and competences to facilitate such actions. Results indicated the need for structural changes of partner networks (technology and content providers, consultants etc.), organizations and IT-structure for retailers to fully capitalize on the potential of mobile marketing (Table A3). As these results are based on mobile advertising, the general need for combining resources and capabilities are likely to be similar for in-store and post purchase marketing. But the literature revealed less about if other kinds of partners, resources and capabilities are needed in the network.

However, driving consumers to mobile marketing will potentially increase transparency of retailers' online and in-store product offerings and prices and this may increase consumers' migration to cheapest alternative. A relationship not covered by the reviewed studies concerns the situation where if increased transparency increases consumers' migration to cheaper alternatives, and this in turn increases industry competition.

Success factors for mobile advertising (SMS) campaigns, and potentially for post-purchase push communications, were related to message content, management of media issues as device development, fluctuating quality of transmission processing, product fit and media costs, measurement, and global campaign launch strategies (Table A3).

For managing consumer heterogeneity, mobile marketing needs to be personalized or at least require narrow segmentation. Retailers need to integrate consumer databases (Sultan and Rohm, 2005) and mobile platforms with back-end solutions to take full advantage of the mobile marketing. Context-aware mobile advertising needs to be planned locally rather than headquarter or centrally planned traditional media campaigns (Komulainen et al., 2007). For internal mobile marketing, staff computer self-efficacy was found to be the major factor impacting the task–technology fit, while education, position experience, and cognitive style are found to impact certain factors of the task–technology fit (Lee et al., 2007). Results were similar to consumer acceptance and use of mobile marketing, requiring an update of competence profiles, experiences and knowledge of retailers' staff, as well as the ability to manage for instance context-aware mobile advertising.

3.15. Mobile marketing metrics

Mobile marketing provides retailers with an additional marketing tool, and in so doing creates a need for structural change, and the need for adequate measurement of mobile marketing effectiveness is imperative. But commercial effectiveness of m-advertising was often evaluated in the same terms as traditional media (Komulainen et al., 2007). An integration of traditional and non-traditional measures is needed (Li and Stoller 2007). Based on Sultan and Rohm (2005) and Rettie et al. (2005), measures for mobile test media (SMS) should include: brand awareness, consumer responses at the retail or transaction level, as well as the viral effect of mobile-marketing messages. Based on Bellman et al. (2011), the evaluation of mobile multimedia such as mobile web and apps should also include other brand measures such as brand attitude and purchase intention. We posit that additional measures might also be included such as store effectiveness, by looking at conversion rates, up-sales, cross-sales, customer value and satisfaction. With a similar logic, retailers' mobile marketing that supports customer post purchase brand interaction and product use may include measures of loyalty effects (attitude as behavioural based loyalty), value of and satisfaction with product use and support. For mobile pull media, the quality of the visitor base may directly affect the expected results of their visit, so a special focus might look at measuring the effects based on what customers' visit the media and their individual goals with the visit.

4. Discussion

Mobile device shoppers could represent substantial value for retailers due to their higher spending power (Barutcu, 2007; Okazaki, 2007b), even though their mobile shopping behaviours were far from explored. Mobile device shoppers may be considered as multiple segments (Okazaki, 2007b; Okazaki and Romero, 2010), further segmented, based on at least gender (Constantinou and Mahnke, 2010; Deng et al., 2010; Okazaki, 2007a), age (Barutcu, 2007; Deng et al., 2010), and cultural differences (Choi et al., 2008; Constantinou et al., 2009; Dai and Palvia, 2009; Muk, 2007). Differences between existing and potential mobile device shoppers were not identified in the reviewed literature.

However, indications were found that mobile device shoppers were both experienced mobile device users (Alda's-Manzano et al., 2009; Roach, 2009), and consisted of high fractions of savvy PC Internet users (Alda's-Manzano et al., 2009; Deng et al., 2010; Kleinen et al., 2009; Lin and Wang, 2006; Lu and Su, 2009; Okazaki, 2007a). These consumers also had higher knowledge and self-efficacy (Moynihan et al., 2010), exhibited an exploratory search behaviour (Wang and Acar, 2006), was more involved and/or more price-conscious, and had an higher education (Barutcu, 2007). In summary these results may indicate that mobile device shopping is an extension of Internet shopping behaviours, potentially developed through experiences using specific mobile device functions, such as camera, QR code scanners and GPS.

Targeting mobile device shoppers require retailers to manage these consumers to opt-in to retailers mobile marketing from multiple contact points, due to the downsides of mobile push channels (Bauer et al., 2005; Carroll et al., 2007; Dickinger and Kleijnen, 2008; Peters et al., 2007; Tsang et al., 2004). The downsides of mobile push channels also limited communication frequency and choices of target groups to consumers with high brand awareness (Carroll et al., 2007), especially existing customers (Peters et al., 2007) permitting to receive mobile push advertising, and by assumption during campaign periods when brand awareness increase. Based on Kleinen et al. (2009), mobile marketing also offered opportunities for retailers for segmentation and targeting of consumers instore and for post-purchase services, improving perceived value, and potentially retailers' outcome value based on Lee et al. (2007). However, to make consumers opt-in to mobile marketing is just the starting point of managing consumer relationships with mobile marketing. How consumers may be segmented, targeted and managed by customized interactions in real time during different stages in brand relationships were not comprehensively covered by the reviewed studies.

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Mobile marketing delivered utilitarian, hedonic, social and monetary values to consumers (Kim et al., 2007; Pilström and Brusch, 2008; Turel et al., 2007; Yang and Jolly, 2006). The relative importance of each value or benefit construct differed between mobile media or channel types (Bauer et al., 2005; Choi et al., 2008; Chowdhury et al., 2006; Haghirian and Inoue, 2007; Okazaki, 2007b; Tsang et al., 2004; Xu, 2006), utilitarian or hedonic categories (Kim et al., 2009; Lu and Su, 2009; Pilström and Brusch, 2008), and contexts (Pilström and Brusch, 2008). However the reviewed literature revealed less about how consumers use mobile media and channels, PC Internet and store network for shopping, and what value each type of channel in different shopping contexts delivered. Mobile channels may be preferred by consumers in certain shopping situations that create higher emotional values such as filling spare time (Peters et al., 2007), while being remote from a PC or in situations where a PC is unpractical to use, such as travelling, on coffee brakes; or while consuming traditional media (Peters et al., 2007). Other potential situations are when consumers are on the go and external stimuli are arousing interest for specific content, when close to and during store visits, or during product use. In these situations, mobile channels may deliver higher utilitarian values, such as efficiency (Kleinen et al., 2009; Laukkanen, 2007), and time and location convenience (Kleinen et al., 2009). For information search in higher involvement categories, PC Internet was preferred (Okazaki and Romero, 2010) due to screen size, easier navigation and data input (Laukkanen, 2007), and as an alternative to stores for completion of transactions.

Mobile marketing may be an adequate tool for retailers to use in lower involvement categories and as a complement to PC Internet in higher involvement categories (Okazaki and Romero, 2010). Eventually, the development of mobile devices and interfaces will affect consumers using mobile Internet to a greater extent in higher involvement situations. In summary, mobile marketing may be perceived differently in different shopping contexts, resulting in different effects on retailers' outcome value. Even though social values did not directly affect adoption, and use of mobile marketing, it had a minor affect on loyalty (Muk, 2007; Pilström and Brusch, 2008; Zhang and Mao, 2008). Retailers should not underestimate the potential importance of social values in creating loyalty effects as word of mouth or viral marketing (Wais and Clemons, 2008). Social values of mobile channels may be more important for emotional categories (Pilström and Brusch, 2008), as consumers may feel a need for social approval for, or supporting social status of brand and product choices.

Realizing the potential value of mobile marketing for consumers and retailers, mobile marketing was indicated to add most value if it is integrated in consumer interfaces, adding interactivity to existing consumer contact points or substituting some contact points with mobile marketing. A limited number of studies highlighted the importance of integrating mobile marketing communication (Kim and Jun, 2008; Scharl et al., 2005, Sultan and Rohm, 2005), integration of PC and mobile Internet (Okazaki and Hirose, 2009; Okazaki and Romero, 2010; Wang, 2007), integrating mobile marketing with traditional media (Kim and Jun, 2008). The suggestion to integrate mobile marketing with products and packages (Sultan and Rohm, 2005), makes mobile marketing a part of the augmented product. To support consumers' opt-in to retailers' in-store mobile marketing, promotion material in-store may need to be integrated with mobile marketing. As a consequence mobile marketing may be fully integrated in retailers' consumer interfaces to reach its full potential.

The effects for retailers of such an integration of mobile marketing may be increased effectiveness of brand communication, and improved service interactions instore and post purchase. Rettie et al. (2005), verified increased outcome value of mobile push advertising compared to direct marketing for firms, while integration of mobile push and pull advertising outperformed traditional advertising (Kim and Jun, 2008). Lee et al. (2007), presented a study of front line staff using internal mobile marketing that indicated increased outcome value for retail. As a channel addition, mobile push advertising could increase loyalty to main channel (Nysveen et al., 2005a), while mobile pull media increased branding effects (Bellman et al., 2011; Li and Stoller, 2007), the foundations for increased loyalty to retailers. As consumers' information processing were indicated to be improved by mobile marketing integration (Wang, 2007), consumers' information processing of existing brand contact points may be improved by adding interactivity through mobile marketing. Retailers participating in value co-creation with mobile advertising services providers indicated that increased co-creation activities from retailers' side increased their perceived value of mobile advertising services. The effects of consumers' participating in value co-creation were not covered in the reviewed literature.

Based on Okazaki et al. (2007), adding mobile marketing seemed to affect retailers' brand positioning, but how mobile marketing values affected brand associations and positioning the literature revealed less about. It can be inferred that retailers' mobile marketing may contribute to an enhanced experience of retailers existing brand image or adding new, valuable benefits to the brand image, if they are perceived as relevant and superior to what competitors' can offer, and then creating more lasting competitiveness.

By just adding mobile marketing the perceived values and benefits of mobile marketing may affect retailers' brand positioning and images in these early stages of retailers' mobile marketing implementation. For more lasting competitive advantages, retailers may need to identify application areas of high relevance for consumers that may contribute to an enhanced experience of retailers existing brand image or by adding valuable benefits to the brand image, and then implementing them in such manners that they are perceived as superior to competitors'.

Driving consumers to mobile marketing may result in increasing loyalty to retailers' mobile marketing based on consumers' higher perceived relative values (Kleinen et al., 2009; Laukkanen, 2007; Okazaki and Hirose, 2009; Okazaki and Romero, 2010) and assumable "stickiness" of mobile marketing. Based on the results of Nysveen et al. (2005a) showing that mobile marketing addition were indicated to increase loyalty to main channel, retailers may need to manage consumers' migrations between channels, driving consumers to the most valuable channel in each situation. Preferably, this is done in such manners that it fosters consumers' to use single retailer's mobile marketing as the premium tool supporting planning, purchasing and enhancing brand and product experiences. By providing the most streamlined, customized purchasing and product use processes, and/or the most tempting brand, store or product experience, mobile marketing may foster loyalty to single retailer's store network. A first step may be to identify different roles and synergies between media and channels supporting such interactions on consumer segment levels. This area is comprehensively less covered by the reviewed studies.

The potential downsides of driving consumers to mobile marketing may be the increased transparency of retailers' assortments and prices even in-store. Such transparency may increase consumers' migration to cheapest alternative and increase industry competition. To avoid increasing competition, retailers may also have to reconsider generic strategies (differentiation, low cost or focus strategies), and its effects on total offering, assortments and pricing strategies.

For retailers to develop a mobile marketing value chain, they had to manage a partner network (Salo et al., 2008; Sultan and Rohm, 2005), structural changes of IT-structure (Sultan and Rohm,

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2005) and organizations based on Komulainen et al. (2007). These results implied that mobile marketing implementation may be a major change project, requiring network partners not only to contribute to retailers' outcome value but to process benefits and reduction of non-monetary sacrifices, considering retailers' participation in value co-creation (Komulainen et al., 2007) and cultural differences (Okazaki, 2005). These results imply high degree of customization of partner solutions and processes, and development of structural bonds between network partners. The evaluation of mobile marketing was problematic, lacking established measures for the effectiveness of mobile marketing (Sultan and Rohm, 2005), especially for other application areas than mobile advertising. Mobile marketing also provides retailers with contextual consumer data on an individual level, potentially fuelling retailers with additional data to improve actions and results, however less studied.

5. Conclusions

The purpose of this literature review was to describe existing knowledge on how mobile marketing can increase value for consumers and retailers. The review revealed multiple supports for mobile marketing increasing perceived value for consumers and outcome value for retailers. However, only a limited number of studies supported mobile marketing as more effective than retailers' alternative marketing investments, delivering higher relative perceived value to consumers and higher relative outcome value for retailers. Though not verified, several studies indicated the path between consumer perceived values of mobile marketing affecting adoption, use and loyalty to retailers' mobile marketing, and increasing relative outcome value of retailers' mobile marketing. Mobile marketing may initially support consumers' and retailers' interactions during pre-purchase, service delivery in-store, and post-purchase, but to a lesser extent mobile transactions as consumers perceived them as more risky. An interesting aspect was that mobile marketing seemed to increase retailers' outcome value of existing media choices, channels, assortments, and services by the effects of channel addition and integration.

The reviewed literature revealed limited knowledge about mobile device shopping behaviours, restricted to mobile advertising and retail services usage. Mobile device shoppers may be considered as multiple segments and potentially valuable to retailers, due to higher income and/or education. Knowledge of effective segmentation approaches for these consumers were limited to traditional background data. Mobile device shopping was indicated to be an extension of PC Internet shopping behaviours. Mobile marketing delivered multiple perceived values to consumers (utilitarian, emotional/entertainment/hedonic and social values), and relative benefits and values of mobile devices (enjoyable, timely and offered companionship) and marketing (efficiency, time and location convenience) compared to PC Internet. However, mobile device shopping as "an extension of PC Internet shopping" is somewhat limiting as new behaviours have become evident such QR and bar code scanning, and location based services, while potential new behaviours may be influenced by augmented reality based content and Near Field Communication (NFC) mobile device payment. These values and benefits may be perceived differently dependent on shopping context, and seemed to have some effect on retailers' brand positioning.

Several studies supported the logic for integration of all retailer consumer interfaces with mobile marketing, maximizing exposure and connectivity between retailer and consumer, managing consumers' cross media and channel use, supporting self-segmentation of consumers, increasing perceived value to consumers and outcome value for retailers. The research suggested that the implementation of mobile marketing forms part of the foundation for sustainable competitive advantage. From a branding perspective mobile marketing was indicated to offer several advantages for retailers. First, mobile marketing was indicated to be a more effective channel for brand and sales driven communication than traditional media, sales promotion and direct marketing. Second, by

Table A1
Studies of consumer perceived value of mobile marketing.

Research theme	Author	Theory	Type of study
Mobile service adoption	Constantinou et al. (2009)	Reasoned based choice theory, perceived value & cultural differences in adoption intention	Quantitative
	Constantinou and Mahnke (2010)	Reasoned based choice theory, perceived value & gender differences in adoption intention	Quantitative
	Kim et al (2007)	Perceived value & extended TAM	Quantitative
	Turel et al. (2007)	Perceived value & TRA	Quantitative
Mobile marketing adoption	Dai and Palvia (2009)	Personal predispositions, extended TAM, perceived value, compatibility & subjective norm	Quantitative
Mobile technology use	Park and SuJin (2006)	Consumer values, attitudes and behavioural intentions, technology trust, technology experience, (Elaboration-Likelihood Model (ELM) and Heuristic–Systematic Processing Model (HSM))	Quantitative
Mobile service use	Kim and Hwang (2006)	Personal predispositions and application value tendencies, user & media gratification theory, service quality	Quantitative
	Yang and Jolly (2006)	Consumer values, perceived value, TRA, TPB	Quantitative
Mobile marketing use	Kleinen et al. (2009)	Personal predispositions, perceived value, intentions to use,	Quantitative
	Laukkanen (2007)	Benefits of Internet and mobile bank	Qualitative
	Mahatanankoon et al. (2005)	Values of mobile marketing and mobile marketing operation modes	Quantitative
	Xu et al (2011)	Perceived value & behavioural intentions, personal predispositions , technology experience	Quantitative
	Xu et al. (2009)	Media formats, media uses and gratification (Internet advertising), advertising effectiveness, technology experiences, personal predispositions, TRA	Quantitative
Mobile service loyalty	Deng et al. (2010)	Perceived value, service quality, customer satisfaction, trust, loyalty & personal predispositions, technology experience	Quantitative
	Pilström and Brusch (2008)	Perceived value & customer loyalty	Quantitative
Mobile marketing loyalty	Lin and Wang (2006)	Perceived value, customer satisfaction, technology experience, trust & loyalty	Quantitative

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offering opportunities to streamline, customize and enhance shopping experiences in-store, product use and other post purchase interactions, the service experience may reach new levels of perceived values and satisfaction. These new levels of "customer delight" may add to the brand image fostering loyalty and increasing recruitment of consumers. Third, mobile marketing was found to increase the value of existing marketing investments. By channel addition mobile marketing increased connectivity to retailers and was indicated to increase loyalty to store network. By adding interactivity to existing brand contact points, consumers' information processing were indicated to be improved, resulting in improved branding effects. Finally, as these potential advantages were backed up by development of a partner network and assumingly structural bonds within partner networks and structural changes of IT-structure and organization, the potential for these advantages to be more lasting are increasing. Assumingly, increased consumer co-creation activities by using mobile marketing also increase perceived value for some consumers and outcome value for firms, potentially creating higher brand involvement, loyalty and structural bonds to retailers' and more lasting competitiveness.

5.1. Managerial implications

Mobile marketing implementation may be a tactical decision, adding another media to improve single media effectiveness. But the potential of mobile marketing seems to be in the integration with entire consumer interfaces. Mobile device shoppers may be valuable segments for retailers. By opt-in to retailers' mobile marketing they may be even more valuable. Retailers can deliver higher perceived value to these consumers, potentially affecting recruitment, loyalty and sales results. By opt-in to retailers' mobile marketing individual consumers are identified, behaviours traceable, perceptions, actions and relationships are more effectible, maximizing retailers' exposure and connectivity independent of time and place, and increase the value of existing marketing investments.

For retailer's that rely primarily on their store network, mobile marketing may seem like a Gordian Knot. Mobile marketing seems to offer opportunities for increased consumer connectivity to retailers potentially offering sustainable competitiveness and increased outcome value. On the other hand it demands

Table A2
Studies of consumer perceived benefits and sacrifices of mobile marketing.

Research theme	Author	Theory	Type of study
Mobile marketing adoption	Alda's-Manzano et al. (2009)	Personal predispositions & TAM, attitude affinity,compatibility	Quantitative
	Amin (2008)	Extended TAM	Quantitative
	Kim et al. (2009)	Extended TAM, attitudes toward mobile communication, subjective norm	Quantitative
	Lu and Su (2009)	Extended TAM, mobile technology experience, compatibility	Quantitative
	Muk (2007)	Attributes of innovation for adoption, TRA	Quantitative
	Roach (2009)	Attributes of innovation for adoption	Quantitative
	Zhang and Mao (2008)	TAM, user & media gratification theory, trust, subjective norm	Quantitative
Mobile marketing use	Barutcu (2007)	Personal predispositions, technology experiences, mobile marketing tools classification, attitudes	Quantitative
	Bauer et al. (2005)	Personal predispositions, perceived risk and utility (perceived value), TRA	Quantitative
	Carroll et al. (2007)	Consumer acceptance of m-marketing	Qualitative & quantitative
	Cheng et al. (2009)	Media uses and gratification (Internet advertising), advertising effectiveness, attitudes	Quantitative
	Choi et al. (2008)	Culture, media uses and gratification, advertising effectiveness, attitudes (Internet advertising) and behavioural intentions	Quantitative
	Chowdhury et al. (2006)	Media uses and gratification (Internet advertising), advertising effectiveness, attitudes	Quantitative
	Dickinger and Kleijnen (2008)	TAM, TPB, previous category use	Quantitative
	Gao et al. (2009)	Perceived interactivity, mobile design features. advertising effectiveness	Quantitative
	Haghirian and Inoue (2007)	Consumer values, mobile advertising values, media uses and gratification (Internet advertising), advertising effectiveness, attitudes and behavioural intentions	Quantitative
	Jayawardhena et al. (2009)	Trust, mobile marketing experience, perceived risk, behaviour/permission	Quantitative
	Moynihan et al. (2010)	TRA, TBP, perceived knowledge, self-efficacy, trust	Quantitative
	Okazaki (2007a)	Gender, technology experience, trust, advertising effectiveness, attitude and behavioural intentions	Quantitative
	Okazaki (2007b)	Personal predispositions, media uses and gratification (Internet advertising), advertising effectiveness, attitudes and behavioural intentions	Quantitative
	Okazaki et al. (2007)	Trust, advertising effectiveness, attitude and behavioural intentions	Quantitative
	Okazaki and Hirose (2009)	Niche theory, media uses and gratification, enduring involvement, satisfaction, attitude, loyalty	Quantitative
	Okazaki and Romero (2010)	Media displacement theory, media complementarity theory and media richness theory	Quantitative
	Peters et al. (2007)	Media uses and gratification, TRA	Qualitative
	Rau et al. (2011)	Information processing (content relevance, delivery time and frequency of messages), advertising effectiveness, attitudes, behavioural intentions	Quantitative
	Tsang et al. (2004)	Media uses and gratification (Internet advertising), TRA	Quantitative
	Wais and Clemons (2008)	Social marketing, viral marketing/word of mouth, attitudes	Quantitative
	Wang and Acar (2006)	Exploratory information search behaviour, consumer attitudes towards Internet and mobile promotions	Quantitative
	Xu (2006)	Media uses and gratification (Internet advertising), advertising effectiveness, personalization, TAM, TPB	Quantitative
Mobile marketing loyalty	Chae et al. (2002)	User & media gratification theory, information quality, customer satisfaction. Loyalty	Quantitative
	Choi et al. (2008)	Internet and mobile Internet benefits and costs, customer satisfaction & loyalty	Quantitative
	Cyr et al. (2006)	Extended TAM, design aestetics & customer loyalty	Quantitative

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Table A3
Studies of the value of mobile marketing for retailers.

Research theme	Author	Theory	Type of study
The value of mobile marketing for retailers	Komulainen et al. (2007)	Perceived value, BTB and network value creation	Qualitative
	Lee et al. (2007)	Insurance agents task characteristics, mobile technology characteristics, personal predispsitions	Quantitative
	Okazaki. (2005)	Adoption of innovations in organizations	Quantitative
	Okazaki and Taylor (2008)	Adoption of innovations in organizations	Quantitative
The improved value of mobile marketing	Bellman et al. (2011)	Advertising effectiveness, ELM, media uses and gratification, advertising planner grid, perceptions and information processing,	Quantitative
	Kim and Jun (2008)	Mobile marketing and advertising classification, advertising effectiveness	Qualitative & qualitative
	Kondo and Nakahara (2007)	Behavioural effect of advertising/direct marketing	Quantitative
	Li and Stoller (2007)	Advertising effectiveness (Internet advertising)	Quantitative
	Merisavo et al. (2006)	Advertising effectiveness, related products	Quantitative
	Nysveen et al. (2005)	Investment and Interdependence Models of Relationships, Channel Addition Usage	Quantitative
	Rettie et al. (2005)	Advertising effectiveness, traditional and direct marketing	Quantitative
	Wang (2007)	Integrated marketing, Multiple Resource Theory (MRT) on inter-media comparison, information processing	Quantitative
	Yeh and Lin (2010)	Advertising effectiveness, advertising appeal and endorser affects on advertising effects, information processing,	Quantitative
Realizing potential value in mobile marketing	Salo et al. (2008)	Mobile marketing campaign process, mobile marketing value chain/network/actors, Intentionally Developed Business Networks (IDBN)	Qualitative
	Scharl et al. (2005)	Mobile message & media success factors, TRA, TAM, advertising effectiveness	Qualitative & quantitative
	Sultan and Rohm (2005)	Media characteristics, advertising effectiveness, mobile value chain	Qualitative
	Sultan and Rohm (2008)	Media usage characteristics, attitudes towards mobile communications, personal predispositions	Quantitative

substantial resources for change processes, while mobile marketing may increase price competition from competing retailers and distance sellers encountering the physical environment.[2] The worst-case scenario is consumers using retailers′ shop network as show rooms, and then use mobile devices to buy from the cheapest alternative on spot, in store. This scenario is probably more likely for retailers in higher involvement categories offering supplier branded products without exclusive distribution. Mobile marketing may then affect other strategic decisions for retailers′. An alternative approach to an overall structural change implementing mobile marketing, is identifying application areas with high impact on consumer perceived and retailers′ outcome value, requiring minimum investments and organizational changes, stepwise moving on to more demanding application areas while learning the new technology and consumer shopping behaviours.

5.2. Implications for further research

The reviewed literature provides a limited contribution to evidence that consumer perceived value of mobile marketing affected retailers′ outcome value, and that mobile marketing increased relative value for retailers and consumers. Several key areas calling for further research have emerged. These are listed under four headings: mobile device shopping, the relative outcome value of mobile marketing, mobile marketing value creation, and mobile marketing metrics.

5.2.1. Mobile device shopping

There is a need to know more about the following:

(1) What kind of mobile device behaviour consumers′ use while shopping,
(2) why they use a mobile device,
(3) which devices they use,
(4) in what context(s) they use mobile devices,
(5) the levels of mobile usage,
(6) what media is consumed?,
(7) the level of channel switching and what drives this behaviour, and
(8) more detailed consumer information.

Such knowledge can be used to estimate diffusion patterns of such behaviours and to identify new usage of and increase the usage of existing mobile device shopping.

5.2.2. The relative outcome value of mobile marketing

There is a lack of studies measuring the relative outcome value of mobile marketing. Of interest is aligning consumer-perceived value with outcome value of mobile marketing. In general, the lack of comparative results measuring effects of mobile marketing compared to retailers other investment opportunities remains problematic, as evidence by improved relative output value of mobile marketing in the review was found to be one of the major factors driving mobile marketing adoption and implementation in organizations.

5.2.3. Mobile marketing value creation

Mobile marketing is a rather new way of communicating and interacting with consumers. For that reason, there is a need for

[2] http://www.youtube.com/watch?v=nJVoYsBym88 (2012-08-21).

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Table A4
Studied technology, services and applications.

Research category	Technology, service, application	No. of studies
Consumer perceived value	Mobile devices	1
	Mobile services	7
	Mobile advertising	2
	Mobile distance channels	4
	Mobile marketing (several tools)	1
Consumer perceived benefits and sacrifices	Mobile services	1
	Mobile advertising	23
	Mobile distance channels	7
	Mobile marketing (several tools)	1
The value of mobile marketing for retailers	Mobile advertising	3
	Mobile marketing (internal)	1
The improved value of mobile marketing	Mobile advertising	8
	Mobile marketing (CRM)	1
Realizing potentials in mobile marketing	Mobile advertising	4
Total		**64**

more studies on mobile marketing implementation for retailers. Of a certain interest for retailers are in-store and post-purchase mobile marketing, especially when integrated with other off- and on-line communications, products, packages etc.

5.2.4. *Mobile marketing metrics*

In order to evaluate the effectiveness and efficiency of mobile marketing practices, more empirically oriented research is needed to establish relevant metrics of mobile marketing, for example to align mobile marketing investments with overall results.

Appendix A

See Tables A1–A4.

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