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Determinants of effective SoLoMo advertising from the perspective of social capital

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Abstract

Purpose – The purpose of this paper is to investigate factors affecting attitudes toward social-local-mobile (SoLoMo) advertising from the perspective of social capital.

Design/methodology/approach – There were 422 respondents filling out the survey instrument. The research model in this study is tested using SPSS 20 software.

Findings – The results show that structural, relational, and cognitive dimensions of social capital have impacts on consumer attitudes toward SoLoMo advertising.

Originality/value – It contributes to the literature by advancing our knowledge about determinants of effective SoLoMo advertising from the perspective of social capital. It also provides constructs that constitute the three dimensions in advertising. The author expands the understanding of the social relations under the context of business to consumer by adding substantial nuances to the understanding of the role of social capital in advertising. Finally, this study provides practical suggestions.

Keywords Capital, Advertising, Social, Mobile, Self-disclosure, SoLoMo

Paper type Research paper

Introduction

Researchers have developed various persuasion models to examine the effects of media advertising (e.g. Petty *et al.*, 1983). Yet, heterogeneous responses of targeted customers in a fragmented and diversified market still pose unique challenges to marketers to engage in effective persuasion. Social-local-mobile (SoLoMo) marketing becomes a tactic that advertisers use to communicate with targeted and potential customers in a semi-open rhetorical style to allow the customers to generate advertiser-intended messages (eMarketer, 2013). SoLoMo advertising, which refers to advertising information tailored for a user based on the location of that mobile user on social media. For example, when Alice is on Facebook with a smartphone or other mobile computing device, SoLoMo ad messages and/or deals of local companies based on Alice's location are displayed on her social media.

SoLoMo advertising has become a vital way to promote products, develop brands, and stimulate direct purchases because it offers more interpersonal connectivity, intimacy, and sociability that contemporary mobile users value (Szewczyk, 2013). However, marketers have difficulties to make decisions for the determination of effective SoLoMo advertising.

This research makes several contributions to current advertising research: first, empirical studies have seldom examined factors influencing attitudes toward SoLoMo advertising. Few researchers (e.g. Chang *et al.*, 2015) explored relationships between various kinds of persuasive messages and message popularity. To fill the research gap, this study explores these influencing factors. More importantly, we focussed on factors that are crucial in social media: self-disclosure, self-presentation, brand bonds in the investigation. Second, assessments of social media promotion

have typically ignored the perceived value of social capital (Bourdieu, 1986). Marketing scholars usually apply the social capital theory to examine marketers' coordination and customer knowledge sharing activities. As a consequence, the values of the structural, relational, and cognitive dimensions of social capital in the current context remain ambiguous. In this study, we propose a theory rooted in the social capital to address this gap. We propose that the targeted consumers should be understood as a social community who can promote product and related knowledge in a speedy and efficient way. The purpose of this study is to help advertisers generate effective advertising with a customer focus. As social capital is not a uni-dimensional concept (Putnam, 1995), we investigate different facets of social capital in terms of three dimensions in this research; examine how each facet influences consumer attitudes toward SoLoMo advertising; integrate the three dimensions; and argue that consumers can develop high level of social capital. As a whole, the constructed model of this study demonstrates the values of the structural, relational, and cognitive dimensions of social capital in SoLoMo advertising. The results reveal a discrepancy in determinants and paths of SoLoMo advertising attitudes. The substantial nuances of each dimension offer insights for marketing practitioners to improve effectiveness of SoLoMo advertising for amplifying or suppressing advertising attitudes.

Because Facebook has become the most popular and frequently used social media option in the world (David, 2013), this study used Facebook to investigate factors affecting attitudes toward advertising. The results of this study can also provide practical suggestions for advertising on mobile environments.

Conceptual framework
Mobile advertising
Researchers have dedicated their efforts to improve consumer attitudes toward mobile advertising. Short message service (SMS) advertising has been mostly studied. For example, Cortes and Vela (2013) especially focussed on factors that lead to negative attitudes toward SMS advertising. They reveal that irritation, privacy concerns, and intrusiveness are main antecedents of negative attitudes. They also clarified that the latter two factors precedes the former. Tsang *et al.* (2004) reveal utilitarian and experiential factors affecting consumers' positive attitudes toward SMS advertising in permission marketing. Such attitudes would lead to acceptance behavioral intentions. Most SMS mobile advertising research has demonstrated that entertainment (Lin *et al.*, 2014; Tsang *et al.*, 2004), informativeness (Lin *et al.*, 2014; Xie *et al.*, 2013), credibility (Lin *et al.*, 2014; Tsang *et al.*, 2004), and social relation are important drivers of consumer attitudes in mobile advertising research. Irritation (Tsang *et al.*, 2004), privacy concerns, and intrusiveness (Cortes and Vela, 2013), on the other hand, decrease the attitudes. Intrusiveness refers to the degree to which advertisements interrupt an audience's cognitive processes to reach a goal (Cortes and Vela, 2013). As intrusiveness is a cause of irritating ads (Becker, 2008), we examine effects of irritation and privacy concerns only.

Then, a specific type of mobile advertising, "location-based advertising" (LBA), emerged. LBA involves the application of "location-based services" (LBS) to enable content providers to offer the most customer-focussed local information at the right time and in the right place (Kuo *et al.*, 2009). LBS make use of mobile tracking techniques to provide mobile device users with more relevant information based upon their current position (Wu, 2008). LBA refers to advertising information

tailored for a user on the basis of the location, personality, age, and interest of that mobile user (Drakatos, 2012). Muk (2007) integrated innovation attributes and subjective norm to investigate the differences between American and Korean young consumers in the adoption of location-based SMS advertising. He found that social pressures exerted strong power in increasing consumers' attitudes, which, in turn, predict adoption intention of SMS LBA. Yang *et al.* (2013) revealed that multimedia LBA increases informativeness and entertainment value of LBA, which lead to a higher level of favorable attitude, the intention to use LBA, and purchase intention.

Marketers search for success formula to use mobile marketing effectively. The emerging trends of social media and mobile Internet popularity make SoLoMo more appealing to consumers. SoLoMo offers more interpersonal connectivity, intimacy, and sociability that contemporary mobile users value. SoLoMo ads are deemed a better choice than LBA (Szewczyk, 2013), because it provides consumers with the liberty to access social connections anytime and anywhere. SoLoMo ads provide advertising opportunities that target "hyper-local customers" in their location-based services (Chi, 2011). From the perspective of marketing practice, "So" (social) is in particular vital to implement relationship marketing and promote adhesiveness of users: on one hand, the combination of social media and mobile LBA provides advertisers with great opportunities to take advantage of relationship building and maintaining to market their products and services. SoLoMo helps marketers to increase two-way dialogues with consumers. Marketers can quickly understand consumers' feelings and evaluations of the campaign or products, respond to market changes, and reach potential consumers through the two-way communication (Cameron, 2014).

On the other hand, SoLoMo is powerful because of its ability to spread product information to users' virtual communities (i.e. classmates, families, friends, and acquaintances) widely and rapidly. Friends on the social media, such as Facebook, may respond to an ad by pressing the like button, sharing personal experience, and evaluating and recommending the brand in the ad (Cameron, 2014). Word-of-mouth communication of virtual communities is a valuable reference for evaluating alternatives and reducing the uncertainty of consumers when making purchasing decisions. The ability of word-of-mouth to facilitate consumer purchase decisions has prompted many firms to advertise their brands and products on SoLoMo platforms (Szewczyk, 2013). Advertisers can leverage real-time geographical information and the power of word-of-mouth and socialization in mobile marketing efforts to enhance the specificity and effectiveness of ads (Wolford, 2012). Nevertheless, advertisers are uncertain about the effectiveness of SoLoMo advertising (Lapointe, 2012). Past assessments of mobile advertising have typically ignored the perceived value of social capital. We intend to close this gap in literature in the current study.

Although there are many measures of advertising effectiveness, researchers frequently assess the effectiveness via measurement of advertising attitudes and purchase intentions (Goldfarb and Tucker, 2011). We focus on attitudes in the current study because major previous research on advertising effects identifies attitudes toward advertising as a mediation variable in affecting brand perception and purchase intentions purchase intentions (Goldfarb and Tucker, 2011). Attitudes toward advertising refer to an individual's internal evaluation of a particular advertising stimulus in a favorable or unfavorable manner (Lin *et al.*, 2014).

Social capital

Social capital refers to the resources derived from social relationships that may enhance the ability to advance personal interests (Bourdieu, 1986). It is the "sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit" (Nahapiet and Ghoshal, 1998, p. 242). The social capital theory posits that exchange partners share a common interest in how relationship resources facilitate social affairs (Putnam, 1995). Social capital theory has been widely used in sociology describing personal relationships in family, school, online community. Marketing scholars usually apply the social capital theory to investigate marketers resources and networked relationships, rarely on advertising (e.g. Vahl, 2014). For our purposes here, we define social capital as the actual and potential resources derived from the network of relationships possessed by current and potential consumers. Social capital can be examined based on structural, relational, and cognitive dimensions. Following Vahl (2014), this research will focus on emphasis of each dimension in the context of SoLoMo advertising.

Structural dimension

The structural dimension refers to the party's ability to make ties to others and derive advantages based on the rules and network configuration (Nahapiet and Ghoshal, 1998; Stewart and Pavlou, 2002). In the context of the current research, we use the concept of the structural dimension of social capital to refer to the pattern of connections between the exchange parties. Among the key facets in this cluster are structured content and network tie. Through structured content and network tie, social media members can make ties to others and gain advantages based on the sociability offered by the nature of social media (enable friends and acquaintance to be connected in a single platform) with organized content.

Network tie. Network tie concerns access to the resource (Nahapiet and Ghoshal, 1998; Lee and Bell, 2014). Information in advertisements fulfills consumer needs for resources to evaluate the products and make comparisons (Ducoffe, 1996). In the current study, information in SoLoMo ads facilitates consumer learning about a product and share that information to personal contacts. Intense usage of linkages between the advertiser and consumers can establish successful relationships between the two. The relationships enable efficient dissemination of ad information because social media members pay attention to content posted by people they have relationships with (Lee, 2014). Recipients may thus develop favorable attitudes toward advertising.

Structured content. Structured content describes the pattern of linkages (such as density, connectivity, and hierarchy) (Nahapiet and Ghoshal, 1998) and appropriable organization (Coleman, 1988) of content created for the purpose of being used by SoLoMo ad users. The ad content may be framed in various ways in different frequency, connectivity, and hierarchy: according to our observation, the SoLoMo ad content-creator can post product functionalities, discounts, and brand activities to increase recipients' understanding of the products or services offered. The best practice on Facebook is two times per day, between 10:08 a.m. and 3:04 p.m. for each day. The favorable frequency on LinkedIn is one time per day, at around 8:14 a.m., no weekends (Vahl, 2014). Appropriate frequency and connectivity may generate consumers' favorable attitudes toward advertising. The creator may also prioritize postings that are popular in terms of followers and recipient replies by interacting with members or

posting follow-up information to generate buzz. In addition, the creator may engage in event marketing by posting controversial issues (such as Dove campaign for real beauty, asking members to define what beauty is) or by communicating topics related to life and trends in order to enhance brand image (such as posting of care for poor kids to establish an image of humanity). The creators of social media can also set up rules for the members to follow. Such as use of real name, no defamation, no indecent, or obscene materials. An individual has to agree to follow the policy in order to become a member. Members' replies (to the ad) that are destructive, defamatory, or offensive may be deleted by the creator (or deny access) to ensure advertising focus of the message flow and the quality of recipients' self-generated messages (Nguyen *et al.* 2014). Consumers may therefore perceive the enrichment and quality of SoLoMo advertising and generate favorable attitudes toward advertising. We therefore hypothesize the following:

H1. Network tie has positive impacts on attitudes toward SoLoMo advertising.

H2. Structured content has positive impacts on attitudes toward SoLoMo advertising.

Relational dimension

The relational dimension concerns personal relationships that people have developed through their interactions (Coleman, 1990; Putnam, 1995). This dimension focusses on the trust, respect, friendship, and expectation aspects of relations that affect their behavior (Nahapiet and Ghoshal, 1998). Through the ongoing relationships, trust and brand bonds are the most important facets of this dimension in the current context to build up personal relationships.

Brand bonds. Brand bonds refer to a bonding that consumers build up with the brand. In such a bonding, attachment, commitment, closeness, cooperation, and understanding (Akhavan *et al.*, 2015) are qualities in a relationship. In the same vein, consumers with brand bonds understand more about the brand, will build an attachment to the brand, have a commitment to the brand, and involve in activities related to the brand. SoLoMo ads offer a chance for consumers to interact with brands and build bonds. These bonds make SoLoMo users more willing to spend more time, money, or effort in interacting with the brands (Lee, 2011, 2014; Parker *et al.*, 2010), thereby making the brands more desirable (Thomson *et al.*, 2005). Thus, the more perceptions of brand bonds with the brand that consumers have, the more positive attitudes they have toward the ad. We therefore propose that:

H3. Brand bonds have positive impacts on attitudes toward SoLoMo advertising.

Trust. Trust in social capital refers to the belief that others is reliable and trustworthy (Coleman, 1988; Putman, 1994). Trust helps us to anticipate the reactions of interaction partners. It creates mutual reciprocity and voluntary associations that can reinforce and cumulate more trust on others for mutual well-being (Putnam, 1993, pp. 171-177). Trust also creates voluntary associations to foster norms of reciprocity, facilitate communication, and increase the flow of information (Akhavan *et al.*, 2015; Putnam, 1993, pp. 173-174). Advertising research indicates that an increase of consumers' perception of trust may enhance their attitudes toward the ad and the brand (Wang, 2010):

H4. Perceived trust has positive impacts on attitudes toward SoLoMo advertising.

Cognitive dimension
The cognitive dimension refers to the meanings and frameworks that enable people to share their interests and values in information and communication exchanges (Nahapiet and Ghoshal, 1998, p. 244). It is usually described as the shared understanding, representation, and interpretations of meaning among marketers by marketing scholars investigating marketer coordination and (customer) knowledge sharing activities. In the current study, "self-image" is the common frame of reference that motivated consumers to consume, share, and respond to SoLoMo ads. Self-image refers to the perception or mental image of oneself (Fein and Spencer, 1997). Positive self-images help us to maintain and increase self-esteem, have confidence in our thoughts and actions, and increase the feelings of our worthiness as a human being while negative ones make us doubtful of our capabilities and actions (Rosenberg, 1979). According to self-verification theory (Swann, 1983), individuals strive to verity, validate, and sustain their self-concept and maintain self-esteem to understand the worlds, make predictions about others, and know how to react to others (Seih *et al.*, 2013). They foster a preference for positive evaluations that confirm their self-views and positive evaluations of others to facilitate interpersonal connections (Swann, 1983). Some researchers (Sedikides *et al.*, 2003) have attributed such a preference to a desire for self-enhancement that motivates an individual to enhance self-esteem (Malar *et al.*, 2011). In the current context, a consumer can choose the right actions in response to the SoLoMo ads to reflect his/her actual self so that he/she can reinforce positive evaluation about the brand and actual self or to reflect his/her ideal self to get the feelings of approaching aspirations.

In the process of self-image establishment via information and communication exchanges, two forces are involved to decide the degree of the exchanges: one is dedication commitments, the other is obstruction. Dedication commitment and obstruction determine consumers' perception of SoLoMo advertising. The consumers' dedication to SoLoMo is generated by the establishment of self-image. The obstruction refers to forces that make consumers to disfavor SoLoMo advertising.

With regard to dedication commitments, consumers' reaction to SoLoMo advertising projects their closeness or distance with their contacts. Such reaction can be termed self-disclosure and self-presentation.

Dedication commitments: self-disclosure. Based on the mutual trust among social network members (Putnam, 1993), people voluntarily share their feelings, experiences, and statuses by using their preferred method. Self-disclosure is defined as the information, thoughts, feelings, and experiences that people reveal about themselves to others (Derlega *et al.*, 1993; Knoll and Bronstein, 2014) this commonly motivates people to engage in online social communities because self-disclosure increases interpersonal intimacy and relational development (Chu and Yoojung, 2011). Prior studies have suggested that social media users exhibit favorable attitudes toward brands, the media, and advertising (Chu and Yoojung, 2011) if they can reveal their personal information, thoughts, feelings, and experience to their friends in social media because self-disclosure fulfills an individual's needs for interpersonal bonding and emotional support (Jiang *et al.*, 2011). By the same token, if SoLoMo advertising provides an opportunity for consumers to reveal their personal taste, thoughts, feelings, and experiences to their contacts, they may have favorable attitudes toward the ad. However, scant studies

have investigated how perceived self-disclosure affects social media marketing. We therefore propose the following hypothesis:

H5. Self-disclosure has positive impacts on attitudes toward SoLoMo advertising.

Dedication commitments: self-presentation. Self-presentation refers to "the degree to which users feel they are able to make a good impression on others and achieve favorable self-presentation" through online interaction (Gibbs *et al.*, 2006). Studies in the computer-mediated communication (CMC) and sociology fields have investigated the role of self-presentation in online communities (DeAndrea and Walther, 2011; Gibbs *et al.*, 2006) and social networking sites (Seidman, 2013). The results indicate that self-presentational needs motivate people to use social networking sites (Seidman, 2013). In other words, selective self-presentation in CMC encourages overattribution, optimized self-presentation, and manipulated identity (DeAndrea and Walther, 2011; Gibbs *et al.*, 2006). Very few researchers investigate the role of self-presentation in marketing (e.g. Lee, 2015). Yet, how self-presentation in SoLoMo advertising affects advertising attitudes remains unclear. SoLoMo advertising enables people to alter their self-presentations to show others "who they are." Pressing "like" on Facebook to give positive feedback to the ad, giving comments to the ad, or sharing the ad within circles of friends reflect individual taste, style, and preferences. Such selective self-presentation helps consumers to build their image. We therefore hypothesize the following:

H6. Self-presentation has positive impacts on attitudes toward SoLoMo advertising.

Obstruction: irritation. With regard to obstruction, irritation, and privacy concerns make consumers to resist sharing and exchanging communication for self-image establishment. Previous research has found that the consumer prefers advertisements to be relevant and tailored to his/her interests (Tam and Ho, 2006). If mobile advertising content is relevant to consumer interests, then it is less likely to annoy consumers. SoLoMo provides opportunities for marketers to send out sales information capable of meeting not only the needs and tastes of individual consumers, but also meeting the time and location where consumers make a purchase (Tam and Ho, 2006). It is precisely the personalization and customer profiling used in the SoLoMo advertising that provoke irritation and privacy concerns. Irritation refers to negative attitudes toward advertising that arise from feelings among consumers about a form of disturbance, a dislike toward the content of the advertisements, or advertisers imposing on them to receive such advertisements (Ducoffe, 1996). Irritating mobile advertising leads to negative advertising attitudes, making consumers feel offended, inconvenienced, and annoyed (Lee, 2015). Therefore, we propose that irritation of SoLoMo ads may lead to a reduction in the effectiveness of the ads:

H7. Irritation has negative impacts on attitudes toward SoLoMo advertising.

Obstruction: privacy concerns. Privacy concerns refer to the anxiety related to personal information disclosure and dissemination (Cho and Hung, 2011). Privacy concerns have been widely discussed because of the privacy intrusion by information systems and e-commerce-oriented intelligent agents (Belanger, 2011; Pavlou, 2011; Smith *et al.*, 1995). The development of mobile devices has intensified these concerns because mobile technologies can reveal the personal information of consumers for personalized services, and track personal information that is intimate and private. Although several

studies have reported that consumer privacy concerns lead to less-favorable mobile advertising attitudes (Smith *et al.*, 1995), recent assessments of privacy concerns have reported changes of individual expectations and the ideologies of information privacy on social media. In other words, social media have changed the ways of interpersonal disclosure (Water and Ackerman, 2011). For example, mobile phone owners are willing to give up privacy to enjoy appealing features such as the check-in service of Facebook (Rosenberg and Egbert, 2011). Facebook users' selective self-presentation and self-disclosure may limit their concerns about privacy (Ledbetter *et al.*, 2011). The effects of privacy concerns must be re-examined to determine whether recent changes about privacy concerns make differences in advertising attitudes. We therefore hypothesize the following:

H8. Privacy concerns have negative impacts on attitudes toward SoLoMo advertising.

Figure 1 presents the proposed model for SoLoMo advertising.

Method
Instrument development
Five-point Likert scales, ranging from (1) strongly disagree to (5) strongly agree, were used to measure all the variables in the research. The survey instrument developed for this study involved using validated items from relevant literature for assessing
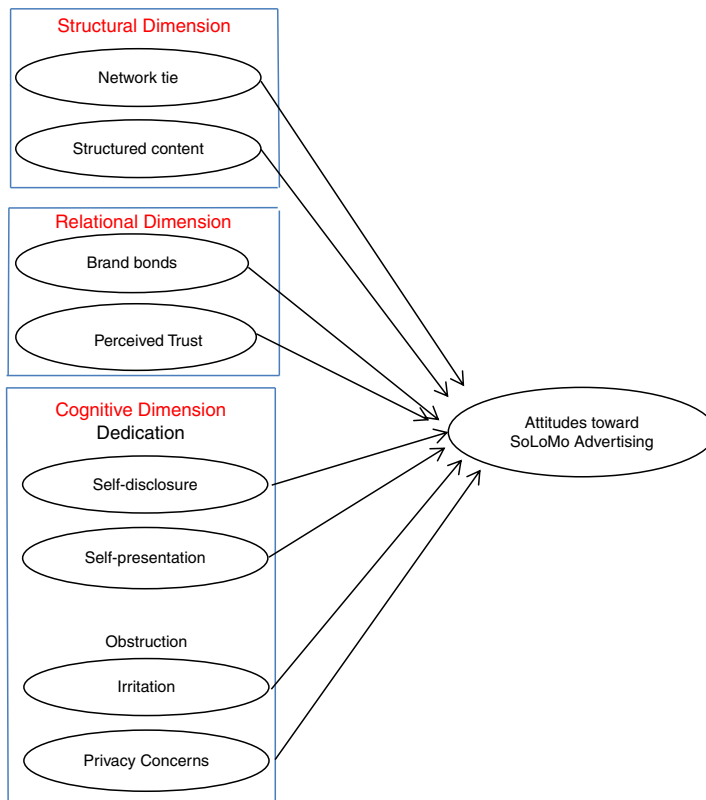

Figure 1.
Social capital model
for SoLoMo
advertising

advertising attitudes. Network tie is conceptualized as user perception to gain access to the SoLoMo ad. Structured content is defined as the pattern of linkages and appropriable organization of ad content created for the purpose of being used by SoLoMo ad users. The measures of both constructs were developed from the conceptualization proposed by Coleman (1988) and Nahapiet and Ghoshal (1998). Brand bonds refer to a bonding that consumers build up with the brand. The scales were revised from Parker *et al.* (2010). Perceived trust is defined as the belief in the ad's honesty and trustworthiness to deliver benign intent and truthful information. The measurement was adapted from Wang (2010).

Self-disclosure is defined as the information that an individual reveal about themselves to others. Its scale was adaptations of the scale developed by Knoll and Bronstein (2014). Self-presentation refers to the degree to which consumers believe they are able to make a good impression on others with the SoLoMo ad. The measurement is adapted from Gibbs *et al.* (2006). Irritation is defined as the feelings of disturbance or annoyance when receiving the ad. The scales were revised from Li *et al.* (2002). Privacy concerns refer to the fear of revealing personal information. The measurement was revised from Pavlou (2011). Attitudes toward ads are defined as the tendency to respond in a favorable or unfavorable manner to ads. The measurement was revised from Mahmoud and Yu (2006).

Research procedures
The questionnaire was pre-tested with help of 30 graduate students to determine the clarity and comprehensiveness of the questionnaire items. The survey was conducted between March 3 and 17 March. Three graduate students were hired as research assistants to distribute the questionnaire in five classes in the business college in the National Sun Yat-sen University in Kaosiung, Taiwan. Students who participated in this survey were awarded extra one credit. Respondents first read a general introduction describing the intent of the survey. Then, SoLoMo advertising was defined and explained to them. SoLoMo advertising, which refers to advertising information tailored for a user based on the location of that mobile user on social media. Respondents were told that they were invited to participate in a survey examining their attitudes toward SoLoMo advertising. Because smartphone became the most popular and frequently used platform to receive mobile advertising (National Communication Commission, 2014), this study narrows scope of mobile devices to smartphone to investigate factors affecting attitudes toward advertising. The results of this study can also provide practical suggestions for advertising on mobile environments. Three items asking respondents if they have used smartphones, have received SoLoMo ads, and how many times they used social media on mobile phones within the prior month were designed to screen validated sample. They were asked to indicate their agreement or disagreement on the survey items for the variables in the second section. The last section requested background data, such as age, education level, gender, income, and occupation. When students completed the survey questionnaire that took 15 minutes, research assistants collected it for data analysis.

Sample
This study used college students as subjects. SoLoMo advertising is accessible by everyone, particularly in Taiwan, where mobile penetration now exceeds 100 percent (126.36 percent), with 85.8 percent of mobile users actively engaging in

reading mobile advertising messages (National Communication Commission, 2014). Particularly noteworthy is the fact that approximately 81.5 percent use 3G (National Communication Commission, 2014). Similar to the worldwide report (e.g. Pew Research Center, 2012), younger mobile users (aged between 18 and 29 years) are found to read mobile advertising messages immediately after receiving them to a far greater degree than other generations. Our use of college students as the sample for this study would therefore seem to be appropriate. There were 422 respondents filling out the survey instrument, generating 415 usable responses. 53.5 percent (222) were female, 46.5 percent (193) were male. 56.1 percent were between 18 and 29 years old. 70.2 percent were at least college graduated. Detailed profile of respondents is shown in Table I.

Data analysis
Validity and credibility
The research model in this study is tested using SPSS 20 software. The results of factor analysis (Table II) demonstrated that the items were, as expected, properly loaded on each factor, except brand bonds and structured content. One item (SoLoMo ad makes me feel committed to the brand) from brand bonds and one item (Members' replies (to the SoLoMo ad) that are destructive, defamatory, or offensive will be deleted) from structured content, which had loading below 0.70, was deleted. A reliability analysis was then performed on each of the factors. All of the measurement scales exhibited strong psychometric properties and high reliability, with the Cronbach's α coefficients exceeding 0.70 ($\alpha = 0.88$ for structured content; $\alpha = 0.87$ for network tie; $\alpha = 0.73$ for irritation; $\alpha = 0.70$ for self-disclosure; $\alpha = 0.79$ for privacy concerns; $\alpha = 0.91$ for branded bonds; $\alpha = 0.85$ for self-presentation; $\alpha = 0.89$ for perceived trust; $\alpha = 0.86$ for attitudes). The model explained 68.95 percent of all the variances with KMO value of 0.918. Each construct could be distinguished at eigenvalues over 1.0.

Measure	Items	Frequency	Percentage
Gender	Male	193	46.5
	Female	222	53.5
	Under 20	34	8.2
	20-29	233	56.1
	30-39	62	14.9
	40-49	52	12.6
	50-59	19	4.6
	Over 60	15	3.6
Education	Elementary	3	0.7
	Junior high	27	6.4
	High school	94	22.7
	College	204	49.2
	Graduate	87	21.0
Income (year)	Under $50,000	122	29.4
	$50,000-$100,000	231	55.7
	$100,001-$150,000	48	11.5
	$150,001-$200,000	9	2.2
	> $200,000	5	1.2

Table I.
Profile of
respondents

Variable	Structured content	Network tie	Irritation	Self-disclosure	Privacy concerns	Brand bonds	Self-presentation	Perceived trust	Attitudes
SoLoMo ads send relevant product/service information with appropriate frequency and connectivity	0.92								
I can read the most popular postings and/or follow-up information about the SoLoMo ads	0.91								
The SoLoMo ads raise issues for me to engage in the communication	0.88								
I have access to the SoLoMo ads		0.90							
The SoLoMo ads provide useful information		0.89							
The SoLoMo ads provide information sooner than it becomes available to people for members of the networks		0.88							
I find the SoLoMo ads irritating			0.80						
I find the SoLoMo ads annoying			0.78						
I find the SoLoMo ads abusive				0.83					
The SoLoMo ads allow me to disclose my status				0.88					
The SoLoMo ads allow me to disclose my feelings				0.85					
The SoLoMo ads allow me to disclose my personal information				0.72					
The SoLoMo ads make me feel uncomfortable to share personal preferences					0.80				
The SoLoMo ads make me feel uncomfortable to share my physical location					0.79				
I fear my location being racked because of the SoLoMo ads					0.77				
I am concerned with the possibility that the SoLoMo ads will reveal my location to retailers if I respond					0.76				
The SoLoMo ads help me to build relationship with the brand						0.94			
The SoLoMo ads make me to feel attached to the brand						0.93			

(*continued*)

Table II.
Summary of reliability and validity index

Variable	Structured content	Network tie	Irritation	Self-disclosure	Privacy concerns	Brand bonds	Self-presentation	Perceived trust	Attitudes
The SoLoMo ads enable me to get involved in brand-related activities						0.89			
The SoLoMo ads allow me to make a good impression							0.89		
The SoLoMo ads allow me to engage in selective self-presentation							0.88		
The SoLoMo ads allow me to build the image I want							0.86		
The SoLoMo ads are truthful in its dealings with me								0.91	
I would characterize the SoLoMo ads as honest								0.90	
The SoLoMo ads would keep its commitments								0.89	
Pleased									0.92
Good									0.91
Like									0.88
Eigenvalue	5.82	4.87	4.01	3.87	3.22	2.01	1.94	1.34	1.05
% variance explained	12.25	11.20	8.08	7.33	6.89	6.06	5.47	4.87	3.83
α	0.88	0.87	0.73	0.70	0.79	0.91	0.85	0.89	0.86

Note: $n = 387$

Table II.

Results for hypotheses testing

The influences of factors on attitudes toward the SoLoMo ad are presented in Table III. Entertainment, self-disclosure, privacy concerns, sociability, and self-presentation have significant effects on attitudes ($F = 61.53$, $p = 0.000 < 0.001$), which explains approximately 82.2 percent of consumer attitudes toward the SoLoMo ad. Table III demonstrates that structured content has the strongest influence on attitudes ($\beta = 0.52$; $t = 11.01$, $p = 0.000 < 0.001$), while self-presentation has the second strongest influence ($\beta = 0.42$; $t = 5.23$, $p = 000 < 0.001$); followed by brand bonds ($\beta = 0.32$; $t = 4.52$, $p = 0.000 < 0.001$) and self-disclosure ($\beta = 0.14$; $t = 3.21$, $p = 0.000 < 0.001$). Privacy concerns have the least and negative effect ($\beta = -0.08$; $t = -2.80$, $p = 0.005 < 0.01$). The path coefficients of the model are shown as Figure 2. *H2*, *H3*, *H5*, *H6*, and *H8* are therefore supported. Table III also shows that network tie, perceived trust, and irritation do not significantly influence the attitudes. *H1*, *H4*, and *H7* are therefore not supported.

Discussion and conclusion

Conclusions

This study sought to explore impacts of consumers' level of social capital on the attitude toward SoLoMo advertising. More specifically, this study investigated the impacts of structural dimension (network tie and structured content), relational (perceived trust and brand bonds), and cognitive dimensions (self-presentation, self-disclosure, irritation, and privacy concerns) on attitudes toward SoLoMo advertising. This study found that structured content, self-presentation, brand bonds, and self-disclosure positively affect SoLoMo advertising attitudes while privacy concerns exerts negative impacts on the attitudes.

As expected, structural, relational, and cognitive dimensions of social capital positively affect consumers' attitudes toward SoLoMo ads.

Structural dimension

The pattern of linkages (Nahapiet and Ghoshal, 1998) and appropriable organization (Coleman, 1988) of content can generate favorable attitudes toward advertising because

Dimensions	Variables	M	SD	B	SE B	β	t
	(constant)			0.86	0.23		3.42**
Structural dimension							
	Structured content	2.99	0.080	0.53	0.04	0.52	11.01***
	Network tie			0.06	0.03	0.06	1.79
Relational dimension							
	Perceived trust	2.36	0.08	0.31	0.06	0.03	0.48
	Brand bonds	3.13	0.94	0.32	0.07	0.32	4.52***
Cognitive dimension							
Dedication	Self-disclosure	3.21	0.07	0.15	0.04	0.14	3.21**
	Self-presentation	2.48	0.08	0.44	0.08	0.42	5.23***
Obstruction	Privacy concerns	3.90	0.07	−0.10	0.02	−0.08	−2.80**
	Irritation	3.70	0.07	−0.07	0.05	−0.07	−1.58

Table III.
Results of the
regression analysis

Notes: β, standardized regression coefficients. **$p < 0.01$; ***$p < 0.001$
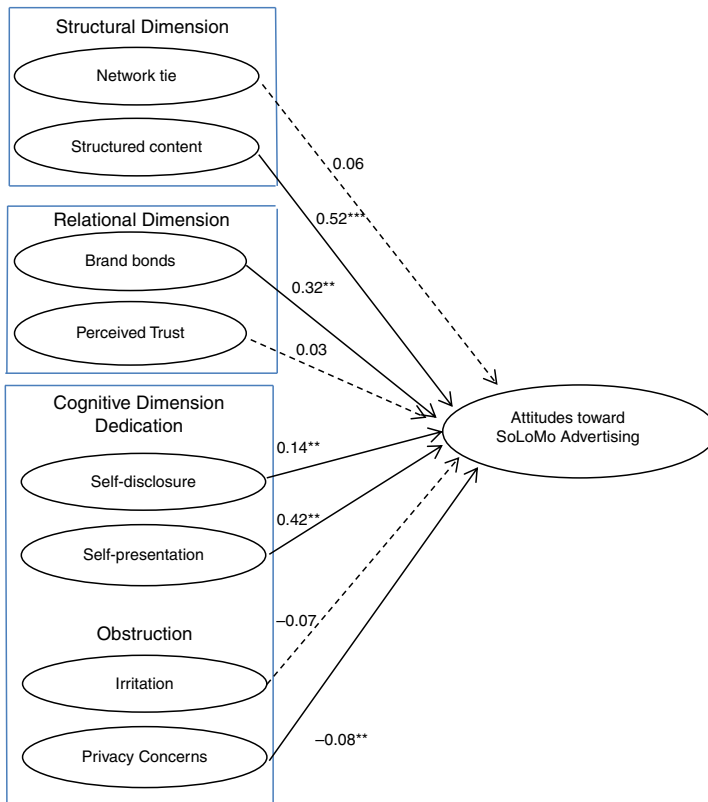
Notes: All numbers in the figure are standardized. **$p < 0.01$

structural content ensures enrichment and quality of SoLoMo advertising, which leads to an encouragement for consumers to contribute quality communication and build traffic.

Relational dimension
The results, confirming previous research (Lee, 2011), reflect the desire of consumers to engage in relationships with the brand. Brand bonds significantly lead to favorable attitudes toward SoLoMo advertising because the qualities of attachment, commitment, closeness, cooperation, and understanding (Woodside and Baxter, 2013) in such bonds generate consumers' affection, passion, or connection (Thomson *et al.*, 2005) to the brand. Consumers therefore have desire for engaging in interaction with the brand (Parker *et al.*, 2010).

Cognitive dimension
This study highlights the two opposing forces of cognitive dimension. For dedication commitments, it discovers that the more consumers perceive SoLoMo advertising a way to self-disclose information, thought, feeling, and experience about themselves, the more positive advertising attitudes they may have. This could be because that

self-disclosure via SoLoMo advertising fulfills consumers' needs for interpersonal bonding and emotional support (Jiang *et al.*, 2011). In addition, this study discovers that self-presentation plays an important role in generating positive attitudes toward SoLoMo advertising. By responding to the SoLoMo ad, consumers can engage in self-image management to achieve an optimized image and favorable self-presentation (DeAndrea and Walther, 2011; Gibbs *et al.*, 2006).

With regard to obstruction, the findings of this study are consistent with prior research (Pavlou, 2011; Smith *et al.*, 1995) that consumers still have serious worries about private information being revealed. Privacy concerns have a negative effect on attitudes toward SoLoMo ads. As such, our study is perhaps the first to show that ad receivers have contradiction: though consumers appear to use SoLoMo ads to reveal their personal information, taste, thoughts, feelings, and experiences and engage in self-image management (engage in self-disclosure and self-presentation) on social media, they expect that their personal information remain secured. The two seems conflicting and confusing. Yet, research in CMC domain (Ledbetter *et al.*, 2011; Rosenberg and Egbert, 2011; Walther, 2007; Water and Ackerman, 2011) shows the fact that mobile and social media users limit their total control of privacy in order to enjoy the benefits (i.e. interpersonal intimacy, relational development, self-image improvement, and management) of losing it though they hate to give up the control of their own privacy. These perceptions are evident in the current research. Insignificance of irritation may verify that SoLoMo ads do not arouse much disturbance and annoyance as previous research shows (Li *et al.*, 2002) as consumers realize the ads facilitate relationship building and self-image management. The possibility of self-presentation and self-disclosure may ease such irritation or any strong dislike for the imposition and disturbance caused by the ads.

Insignificant associations
The results uncovered that network tie does not exert predictive power on attitudes toward advertising. This is inconsistent with prior research (such as Coleman, 1988; Nahapiet and Ghoshal, 1998). It might be attributable to the respondents already being familiar with social media, or that they can always go to the Internet and gain access to various resources. In addition, the results do not support significant impacts of trust as previous studies discover (Wang, 2010). It could be that establishment of reliable and trustworthy relations takes time. It is difficult to evaluate the influences of trust in a short term. This study therefore suggests that a long-term assessment is necessary to evaluate the impacts of trust. Irritation does not significantly exert negative influences on attitudes toward advertising as predicted. It could be because consumers are more acceptable of mobile advertising content relevant to their interests, needs, and tastes at the right time and place. Such personalization and customer profiling used in the SoLoMo advertising make them willing to tolerate the annoyance caused by the advertising.

Contributions
This study contributes to the literature by deepen our understanding of how social capital influences attitudes toward SoLoMo ads from the perspective of social capital. We expand the understanding of the social relations under the context of business to consumer by adding substantial nuances to our understanding of the role of social capital in advertising. The results confirm the proposition of social capital scholars

(Nahapiet and Ghoshal, 1998; Putnam, 1995) that social capital may affect people's action. It also confirms our proposition that consumers can be understood as a social community for product promotion. The higher level of social capital, the more favorable attitudes consumers have toward SoLoMo ads. The results reveal discrepancy in determinants and path of SoLoMo advertising attitudes. We believe that identification of facets of structural and cognitive dimensions represent important assets not yet fully discussed in the mainstream advertising literature on social capital. However, their significance receives substantial attention in the management domain. Specifically, we discuss facets of each dimension. For cognitive dimension, we propose two driven forces of dedication commitment and obstruction to provide more fine-grained insights into factors amplifying or suppressing advertising attitudes. Specifically, consumers may limit their privacy in order to enjoy the benefits. In addition, the results indicate that structural dimension affects the attitudes toward SoLoMo advertising the most, followed by cognitive dimensions, and relational dimension the last.

This study's results have important managerial implications. Consumers can be regarded as a social community to quickly and efficiently promote a product through their social interaction only if marketers take good care of the structural, relational, and cognitive dimensions of social capital. First, the direct effects of structured content indicate that an important challenge for marketers to strategically planning frequency, connectivity, and hierarchy of SoLoMo ad postings. The creator can generate buzz by prioritizing postings that are popular and by posting controversial issues. The creator also has to manage replies (to the ad) that are destructive, defamatory, or offensive to ensure advertising focus of the message flow and the quality of promotion.

Second, the results showing brand bonds positively affect attitudes toward SoLoMo advertising imply that companies have to put efforts in establishing and increasing attachment, commitment, closeness, cooperation, and understanding in their interactions with consumers. Possible means include making strong emotional and personal connection with consumers, developing distinct personas, showing the brand is a part of life, or illustrating an image that consumers want to buy into (Watts *et al.*, 2013).

Third, the results of this study also suggest that means or mechanism for self-disclosure and self-presentation should be designed for SoLoMo advertising receivers to reveal their feelings, experiences, statuses, information about themselves, and make a good impression on others. This can be achieved by carrying content showing brand slogan, emphasizing brand position, or brand personality to allow receivers to show their personal taste or build an image on social media. Finally, whereas consumers take advantage of SoLoMo ads to self-disclosure and self-presentation, these benefits may backfire if privacy intrusion entails negative attitudes. Companies seeking to produce favorable consumer attitudes by SoLoMo advertising would be well advised to consider the possible drawbacks associated with using too much personal information for advertising. It also implies that marketers face challenges to design SoLoMo advertising with great care by inputting elements allowing consumers to engage in selective self-disclosure and self-image management while preventing arousal of serious privacy concerns.

Limitations
Although the current study presents new findings on SoLoMo advertising, there are limitations that must be considered. This study explores the three dimensions of social capital in the context of SoLoMo advertising. However, it did not identify which dimension is more important than any other in explaining their impacts on advertising

attitudes. Further investigation on their importance can provide more insights. This model does not examine demographic differences, such as age, gender, income. In addition, each facet bears some degree of instability, which may lead to change in the relationship and change in the continuity of the social structure (Nahapiet and Ghoshal, 1998). Long-term research on the topic may be valuable to increase our knowledge about mobile advertising. Moreover, this research did not investigate differences of various SoLoMo ad categories, the content, and ways and apps displayed (such as Facebook, Google Plus, LinkedIn). This research did not examine the effects of user clusters (such as mobile device usage intensity) on attitudes toward SoLoMo advertising either. Researchers can further examine their differences to offer more insights. Finally, this research used college students as subjects. Although the age range of the participants in current study is consistent with industry reports, cautious generalizations are necessary.

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