

## How does sport-related mobile apps usage motivation affect consumer perceptions of the sport organizations?

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### Abstract:

The current study was to examine the relationship how the usage motivation features (i.e., perceived customization, involvement, and liking) of sport related mobile applications (apps) affect users' perception on sport organizations' reputation which were modified from the previous research (Guillory & Sundar, 2014). Results indicate that all the three usage motivation factors of sport related mobile apps positively influenced perceived sport organizations' reputation. Specifically, the results revealed that the higher level of customization of the mobile apps, the more positive apps users' perception of sport organization reputation. The current study could provide the implications that understanding the usage motivation factors of sport related mobile apps is crucial to foster a positive relationship between the public and sport organizations. Thus, understanding what motivation factors drives sport consumers to use of sport related mobile apps is one of the keys to successful mobile apps marketing in sport business and need to be further studied.

**Key Words:** Sport apps, Consumer perception, Perceived customization, Involvement, Liking

### Introduction

In the literature of public relations, many studies have frequently studied what types of factors that could enhance public perceptions of organization reputations (Grunig, 1997; Williams & Moffitt, 1997). While most organizations have applied one-way and asymmetrical communication methods such as television and printed advertisements to interact with their target groups in the markets, a volume of research of public relations regarding organization reputation have moved its focus by examining how technological functions of developed media could improve the relationship between organizations and their target groups (Hill & White, 2000).

Developed technology, such as tablet personal computers and smartphones, has changed the ways of communication between organizations and target public. Especially, social media technologies like social networking sites and mobile applications (apps) allow people easily to obtain information of their interested organizations and communicate with the organizations. For example, according to Perez (2014), American smartphone users spend majority of their time consuming digital media within mobile apps. It has also made people seek information through mobile apps rather than the Internet websites because the mobile apps are originally designed and developed to provide best services to customers in the most efficient paces and convenient ways.

The mobile apps also provide each organization the great opportunity to engage directly with its target public. In 2010, smartphones already outsold personal computers which had been seen as the most important product in the IT business (Rakestraw, Eunni, & Kasuganti, 2013). Thus, IT analysts shifted their attentions to the handheld platform and its future trend to understand overall IT industry (Rakestraw, Eunni, & Kasuganti, 2013). Mobile apps technology which is an untapped market that many organizations are attempting to enter, had total revenues of \$87.8 billion in 2015, representing a compound annual growth rate (CAGR) of 24.9% between 2011 and 2015 (MarketLine, 2016). The effective aspects of technological functions in mobile apps give organizations an opportunity to interact with their target public because they can leverage recognition and reputation of organizations. Thus, many organizations prepare unique functional features of mobile apps including streaming audio-visual contents, transactions, chat room, blogs, customized and constant news, and information service.

Despite many previous studies have been conducted to examine the relationships between sport organizations and their target public based on Web site functions and features and the impacts of Web site on

sport organizations' reputation, product purchasing intention, and fan loyalty (Hur, Ko, & Valacich, 2011; Carlson & O'Cass, 2012; O'Cass & Carlson, 2010), there has been a dearth of research in sport organizations' mobile apps and their impacts on sport organization reputations. Given the situation, the current study was to examine how the usage motivation factors of sport related mobile apps could affect users' perceptions of sport organizations' reputation.

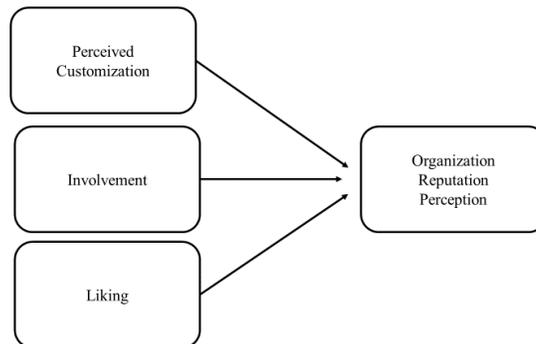
**Literature review**

*Concepts of mobile apps motivation*

According to Cortimiglia, Ghezzi, and Renga (2011), the types of mobile apps can be classified as threefold: a) content-oriented apps, b) marketing-oriented apps, and c) service-oriented apps. Content-oriented apps provide individual needs and wants for information, entertainment, communication productivity, and socialization. Marketing-oriented apps are developed for brand advertising and promotion. Service-oriented apps let the users perform tasks including booking event tickets, mobile commerce, and scheduling. Especially, the pervasion of smartphone usage has brought new possibilities that businesses can promote, maintain, and enhance relationships and interact with their various target publics.

The motivations of mobile apps usage based on the previous studies can be identified several factors including socializing, seeking information, communication, entertainment, hedonism, and self-esteem (Lin, Fang, & Hsu, 2014; Revels & Tojib, 2010; Taylor & Levin, 2014). For example, the mobile apps allow fans to easily obtain information and interact with sport organizations and these may cultivate fans' perception for the reputation of sport organizations. Mobile apps are a very effective tool and even more engaging than websites (Bellman, Potter, Treleaven-Hassard, Robinson, & Varan, 2011). The high level of engagement associated with mobile apps users' experiences have positive effects of attitude toward the brand (Calder, Malthouse, & Schaedel, 2009; Cauberghe & De Pelsmacker, 2010).

Although sport organizations have adapted and developed the capability of mobile apps to improve the relationship with their fans and draw their supports (Kang, 2015; Theodorakis, Wann, Sarmiento, & de Carvalho, 2010), the functional, contextual, and motivational perspectives of using sport related mobile apps have received little academic attention within sport communication, public relations, or marketing literatures. Thus, the current study was to examine the relationship how the usage motivation factors of sport related mobile apps affect users' perception on sport organizations' reputation using three motivational factors which were modified from the previous research (Guillory & Sundar, 2014). The proposed conceptual model (Figure 1) includes three motivations (i.e., customization, involvement, and liking) and organization reputation perception as a dependent variable. Assuming that the usage motivation factors of sport related mobile apps would lead positive associations with apps users' perceptions on sport organization reputation. Therefore, three motivations such as perceived customization, involvement, and liking were applied for the current study because these variables have preponderated in the previous literature. These variables could play a peripheral cue rather than a message manner in the functional views of motivation (Guillory & Sundar, 2014).



*Fig. 1. A conceptual model of the relationship between sport apps usage motivations and perceived organization reputation.*

*Perceived customization*

The concept of customization has faced tremendous popularity among many organizations because customization can offer tailored services to meet heterogeneous consumers' needs (Anderson, Fornell, & Rust, 1997; Kara & Kaynak, 1997). According to Shoemaker (1991), customization is a key feature of interactivity as the concept of gatekeeping that is fundamental to the status, utility, and functioning of mass communication. Mobile apps' functions of customization enable users to change or edit the contents to personal needs and specialization (Guillory & Sundar, 2014). The notion of offering customization as a service function of mobile apps is not relatively new. In specific, many marketers and communication specialists have long understood that perceived customization has a strong potential to certain target consumers. Although the concept of customization has been adopted in many different academic disciplines such as marketing, communication, and psychology, and "customization" was also used as tailored terms such as matching, personalization, and individualized media message. The primary meaning of each of these terms is very similar because each user

receives clear content (Gilmore & Pine, 2000; Kalyanaraman & Sundar, 2006; Skinner, Campbell, Rimer, Curry, & Prochaska, 1999). Sundar (2008) also mentioned that the function of customization for users leads to greater cognitive involvement.

Today, mobile apps are great examples of content-detailed technology that create its own culture among sport consumers because they allow users to meet their intrinsic expectations such as sociability, information search and exchange, and personal recreational activity (Campbell & Kwak, 2010; Kang, 2015). For example, sport consumers are more attracted to use sport related mobiles apps to interact with other people for sporting event information, seek updated news regarding their favorite teams or players, and pursue entertainment options like video streaming and video games. Therefore, these sport consumers can evaluate the contents and quality of sport related mobile apps, then positive outcome of expectation of mobile apps usage can influence to evaluating sport organizations' reputation. Thus:

*Hypothesis 1: Perceived level of customization of sport organization apps will positively influence perceived organizations' reputation.*

#### *Involvement*

According to the situational theory of publics (Grunig, 1997; Yang & Grunig, 2005), people are more likely to be active when they are more involved in the situations of organization that then lead to more information seeking and processing regarding the organization. The concept of involvement is a theoretical motivation construct that provides antecedent factors that possibly explain people's needs and interests and causes certain consequences of behavior (Hur, Ko, & Claussen, 2012; Sun, Cheng, & Cui, 2016). This concept has been used in numerous numbers of consumer behavior literatures. According to the previous research regarding the concept of involvement, as more involvement in Internet website contents leads Internet users' more positive perceptions of an organization website (Guillory & Sundar, 2014; Sundar & Kim, 2005), mobile apps users' attitudes toward app contents affect the intention of involvement (Sun, Cheng, & Cui, 2016).

As Sundar (2007) stated, involvement has the level of cognitive engagement with organization's website content. Other similar suggestions regarding the involvement conceptualization has been discussed by many literatures. For example, Mollen and Wilson (2010) stated that there are three themes (i.e., cognitive processing, assurance of experiential value, and emotional bonding), related to the concept of involvement. Kim, Kim, and Wachter (2103) in their study of mobile user involvement identified cognitive, affective, and conative stages of involvement. According to Seo and Green (2008), the highly motivated sport fans are likely to visit sport related websites to gain further information, thus, mobile apps that offer useful features are more likely to foster the users for greater involvement in the organizations.

*Hypothesis 2: Perceived level of involvement with sport organization apps will positively influence perceived organizations' reputation.*

#### *Liking*

Previous studies suggest that one of the motivation factors to use mobile apps is hedonic aspect of mobile apps (Kim, Lin, & Sung, 2013; O'Brien & Toms, 2008). For example, Jennings (2000) found that engaging mobile apps can be initiated by the aesthetic appeal or novel presentation of mobile apps because aesthetic aspects are intrinsic motivation factors to gain attention from the apps users. Other related studies also depicted that visual beauty and pleasing visual components are a strong contribution to the apps users' first impression of the platform and the aesthetical visual dimensions are positively correlated to perceived usability (Lindgaard, Fernandes, Dudek, & Brown, 2006; Tractinsky, Katz, & Ikar, 2000).

According to Katz, Haas, and Gurevitch (1973), aesthetic and hedonic experience using new technology is an important need of motive for the users. Attractive and aesthetic app designs can provide a great impression when users browse apps and also increase user curiosity and let them want to learn more about the apps (Hou & Ho, 2013). Tractinsky, Katz, and Ikar (2000) also suggested that aesthetic appeals of mobile apps functions have a significant impact on users' experience. Some mobile apps functions can enhance users' aesthetic needs such as enjoyment, interaction, and socialization (Hse & Lu, 2004, Lin & Bhattacharjee, 2007; Wu, 2013). It means aesthetic appeals in the mobile apps generate a positive experience for the apps users. Therefore,

*Hypothesis 3: Perceived liking of sport organization apps will positively influence perceived organizations' reputation.*

## **Material & methods**

### *Instrument*

A self-administered paper survey was modified and developed using the previously used scales for the constructs. The questionnaire was comprised of a total of 27 items with a series of questions relating to the following areas: 1) demographic information (e.g., age, gender, race, etc.), 2) three sport organization apps' motivations (e.g., perceived customization information, involvement information, and liking information), and 3) sport organization reputation. Participants were asked to choose one of their favorite apps from sport organizations (e.g. CBS Sports, the Score, Yahoo Sports, Team Stream, Thuuz Sports, Yahoo Fantasy Sports, StubHub, T!ckets, Forza Football etc.) for the items in the survey. For the motivations, liking information, involvement information, and perceived customization were measured using five items (Guillory & Sundar,

2014), three items (Sundar & Kim, 2005), and three items (Kalyanaraman & Sundar, 2006) were used to measure, respectively.

Sport organization reputation was measured using four items (Guillory & Sundar, 2014). The sample items for each variable were “I visit and use this sport app because I like the visual layout of this sport organization’s app” for liking motivation, “I visit and use this sport app because I felt that I was invited to participate in this sport organizations’ app” for involvement motivation, “I visit and use this sport app because the information on this sport organizations’ app is personally relevant to me” for customization motivation, and “I have positive feelings toward this sport organization” for sport organization reputation. The survey was developed with a 7-point Likert scale from "strongly disagree" (1 on the scale) to "strongly agree" (7 on the scale).

*Sample data collection*

The data were obtained using a convenience sampling method in the spring semester of 2018 (January 28 - March 29). Paper questionnaires were distributed and collected from the students ages 18 or over at a large Midwestern university in the U.S. A total of 212 responses completed the survey. The sample of respondents was consisted of 139 males (65.6%) and 73 females (34.4%). Among the respondents, freshmen, sophomore, junior, and senior students were 35 (16.5%), 27 (12.7%), 73 (34.4%), and 77 (36.3%). For the status of ethnicity, the majority of survey respondents were Caucasian (n=143, 67.5%), followed by African American (n=23, 10.8%) and Hispanic (n=18, 8.5%). Table 1 shows a complete demographic profile of the participants.

Table 1. Frequency and Percentage of Participants

	Frequency	Percentage
Gender		
Female	73	34.4%
Male	139	65.6%
Year		
Freshman	35	16.5%
Sophomore	27	12.7%
Junior	73	34.4%
Senior	77	36.3%
Race		
African American	23	10.8%
Asian/Pacific Islander	18	8.5%
Caucasian	143	67.5%
Hispanic	18	8.5%
Native American	2	.9%
Others	8	3.8%

*Data analysis*

First, a confirmatory factor analysis (CFA) was performed to evaluate construct validity. Chi-square, the Steiger-Lind Root Mean Square Error of Approximation (RMSEA), and Comparative Fit Index (CFI) were used in assessing the absolute and comparative fit of the model. Second, Cronbach internal consistency analysis was conducted to verify internal consistency. Third, descriptive statistics were calculated to assess overall demographics and sport organization apps experiences. Fourth, a correlation analysis of the sport apps motivations was conducted to examine associations among the motivations. Subsequent to the correlation analysis, a regression analysis was conducted to examine the relationship between three sport organization apps motivation factors and perceived sport organization reputation.

**Results**

*Scale Validity & Reliability*

The results of the CFA indicated a reasonable fit of the model to the data ( $\chi^2 / df = 213.248/82 = 2.601$ , CFI = .953, and RMSEA = .086). Cronbach Alphas for each motivation and a correlation matrix among three motivation factors are reported in Table 2. The range of Cronbach’s Alphas ( $\alpha$ ) for the motivations and sport organization apps’ reputation was from  $\alpha = 0.858$  (perceived customization) to  $\alpha = 0.944$  (involvement information), which exceeded the recommended benchmark of .70 (Nunnally & Bernstein, 1994). As shown in the table, the results confirmed positive associations among the variables. Table 2 also shows the means and standard deviations for three motivations of sport organization apps. The results indicated the participants reported high levels of liking motivation (M = 4.95) and customization motivation (M = 5.03), while they reported low levels for involvement motivation (M = 3.16).

The results of the regression revealed the overall model was significant, [F (3, 208) = 64.958, p < .001, Adjusted R<sup>2</sup> = .476], indicating that 48% of the variance in perceived sport organizations' reputations was explained by three motivations of sport apps. The findings also supported all three hypotheses by showing the positive associations between all three motivations and perceived sport organization apps. The Standardized Coefficient (β) indicated that perceived customization information (β = .272) explained the most variance, followed by liking information (β = .270) and involvement information (β = .189).

Table 2. Means, Standard Deviations, Cronbach's Alphas of Constructs, and Correlation Matrix among Constructs

	Liking	Involvement	Customization	Org. Reputation	Mean	Standard Deviation
Liking	α=.944	.303**	.603**	.650**	4.95	1.39
Involvement		α=.858	.271**	.319**	3.16	1.44
Customization			α=.927	.636**	5.02	1.56
Org. Reputation				α=.873	4.74	1.51

Note: \*p< .05, \*\*p< .001

**Discussion**

Technological development of sport related mobile apps has created great opportunities for sport marketers to directly interact with their consumers, particularly in their target customers. As sport consumers consistently engage with sport organization via sport related mobile apps, sport marketers of the organizations should consider how well and efficiently the apps enable them to engage with the target consumers, which could improve the consumers' satisfaction levels of the apps and perceptions of sport reputation. Given the situation, the main purpose of this study was to examine the relationships between three motivations of sport apps usage motivations and organization reputation perception.

The findings indicated that all the three usage motivation factors (i.e., perceived customization, involvement, and liking) of sport related mobile apps positively influenced perceived sport organizations' reputation, which supports our all research hypotheses. Specifically, the results revealed that the higher level of customization of the mobile apps, the more positive apps users' perception of sport organization reputation. The most important finding of this study was that customization as the most important factor for perceived organization reputation and attributed that tailored engaging services such as interactivity and communication features in the mobile apps as a meaning of apps customization enable sport related mobile apps users to have a positive image of sport organizations. Thus, it is very critical for sport marketers to understand their customers' needs and wants and develop their apps to provide more customized services according to various customer groups' expectations via their sport apps.

Involvement factors as the second important motivation also could affect sport organization reputation. This implies that sport marketers should prepare useful involvement features in the sport related apps that likely stimulate the apps users to involve in the sport organizations. Although the finding indicated liking as the least important factor of the mobile apps, liking was still positively associated with sport organization reputation. This finding demonstrates the mobile apps of sport organization should be likeably designed which makes the apps users would have a positive reputation of sport organizations. However, the results of suggest that sport marketers should remember that perceived customized services would have a higher association with customers' perception of organization reputation than perceived likability of sport apps. Thus, it is very important for them to put more attention and efforts in developing high quality services with their sport apps based on thorough understanding of their customers rather than just creating sport apps with only good visual layouts and features.

**Conclusion & recommendation**

More than ever, the mobile apps are consuming as an important vehicle to connect between the public and organizations. The findings of the current study could provide the implications that understanding the usage motivation factors of sport related mobile apps is crucial to foster a positive relationship between the public and sport organizations. Thus, understanding what motivation factors drives sport consumers to use of sport related mobile apps is one of the keys to successful mobile apps marketing in sport business and need to be further studied.

While the current research as a pioneering study provides some insights on the topic, there are several limitations of this research which lead to future research on the topic. First, the current research only collected data from students in a university in the U.S. rather than various sport apps users. Therefore, the generalizability of the current research is very limited. Second, the current study is limited to examine the relationship between sport apps motivations and sport organization reputation perceptions of apps users. Thus, further research

including more relevant concepts like customer satisfaction and service quality, and purchase intention is needed to investigate more insights of sport apps users and enhance sport apps products.

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