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# Mobile communication for human needs: A comparison of smartphone use between the US and Korea





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# ABSTRACT

This study deals with two studies that develop and compare a measure and model of hierarchical needs of smartphone use from US and Korean users. The first study examines the dimensionality of measure by conducting an exploratory factor analysis on 398 US and 331 Korean college students. Results identified five constructs of the smartphone basic needs (SBN) scale from the two samples: physiological, safety, belongingness, self-esteem, and self-actualization. The second study examines the relationships between the SBN and use behavior, which leads to life satisfaction. The relationship of the constructs was theoretically synthesized and tested. Results indicate that both samples believe that the smartphone fulfills the needs of safety and self-actualization that predict smartphone use and life satisfaction. Theoretical and cross-cultural implications are discussed.

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#### 1. Introduction

Mobile communication has become embedded in users' daily communicative practices through telephony, web access, and applications (apps). Mobile communication - a communication behavior enabling users to be mobile without the need for wired communication - is performed via the mobile phone, tablet computer, or laptop computer. The most widely distributed and used mobile communication device to date is the smartphone (Cellular News, 2013; Clabaugh, 2013).

The utility of the smartphone has been evolving rapidly by being used in every sector of individuals' lives. To name a few, the smartphone is used for medical science (e.g., Chhablani, Kaja, & Shah, 2012), business (e.g., Heriyati & Siek, 2011), and safety (Thompson, Turner, Dougherty, & Schmidt, 2011). Research evidence suggests that the smartphone reflects a variety of human interests and continues to expand the scope of usage for need gratifications. The smartphone not only meets a psychological need, but it also functions as a sensory part of human body that meets fundamental human needs (Lemish & Cohen, 2005).

A great deal of research on the smartphone including the mobile phone has been conducted, including reasons for use (e.g., Balakrishnan & Raj, 2012), social activity (Campbell & Kwak,

2010; Wasserman, 2011), marketing (e.g., Andrews, Drennan, & Russell-Bennett, 2012), social relations (e.g., Yuan, 2012), or multitasking (Haddington & Rauniomaa, 2011). Although the studies were theoretically constructed to examine relationships between communication factors, they were conducted without a discussion of humans' fundamental needs for the multifaceted device, which can reflect the traits of the smartphone.

The current study focuses on basic needs in addition to previous motivational use research in the smartphone by employing Maslow's (1954) hierarchy of basic needs theory among youths. This study's goals are twofold. First, it incorporates previous research of basic needs by developing a theoretically derived instrument measuring basic needs for smartphone use and establishing the scale's dimensionality, reliability, and validity in the first study. An application of the developed scale to a smartphone use context is conducted to examine how the met basic needs can link to smartphone use, which may precede the enhancement of life satisfaction.

The second goal is to investigate cross-national samples of the US and South Korea (Korea). Reasons for the comparison are first that the inhabitants of both nations live in distinct cultural contexts (e.g., high context or low context). However, the recent increase of smartphone penetration in Korea has made Koreans individualistic as they depend more on the phone than face-to-face communication among youths (Noh, 2011). Both countries are technologically advanced countries in smartphone use. The current penetration rate of smartphones in the US comprises 61% of the



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entire population (Nielsen, 2013) and 73% of the Korean population (Noh, 2013). A comparison of the two countries in the use of the smartphone can provide insights in need gratifications research culturally and practically.

#### 2. The smartphone: all-in-one device

Individuals can experience an integrated communication package via the smartphone. The communication package includes verbal, auditory, visual, textual, and interactive connections without a physical presence of communicators. These connection channels play a role of meeting needs that humans seek in their daily lives (OfCom, 2009).

Human needs using the smartphone can be enhanced by mobility. Mobility meets direct and instant needs at the site of use. As such, mobile communication has extended its role in users' communicative lives. Mobile communication allows direct communication experiences more than any other media channels (Ling, 2008). Laptop and tablet computers are suitable for portability but do not enable users to connect directly as much as the smartphone. Another characteristic of the smartphone is mobile apps. For example, smartphone apps aid instant decision making by checking a shopping app at a brick-and-mortar store (Zmuda, 2010).

In this view, computer-mediated and face-to-face communication are less flexible than mobile communication in occupied places. People need to be at the place where the devices or the communicator are located. In the meantime, the smartphone imposes the communicator of the place priority (Campbell & Kwak, 2010). Likewise, the smartphone can fulfill human needs because it has extended its usage to a variety of aspects and senses in life with mobility.

#### 3. Basic need gratifications for mobile communication

The smartphone goes beyond meeting entertainment, information, and communication motivations. It assists the user to fulfill needs such as learning, individual capability, safety, and human relationships (e.g., Campbell, 2007; Petric, Petrovcic, & Vehovar, 2011). In the 1940s, Maslow (1943) mapped out human needs extensively in a hierarchical model. Maslow (1954) undertook a holistic approach to human needs in his motivation theory. According to the theory, human motivations encompass not only psychological and behavioral needs, but also physiological ones (Maslow, 1943). Once humans' physiological needs are met, physical safety needs become active for further gratifications. As these needs are met, humans experience discontent and restlessness to continue to pursue the need satisfaction goals (Huneke, 2005), which create a hierarchy of basic needs.

Maslow's hierarchy of basic needs is grounded in the concept of "prepotency." As soon as a basic want such as hunger satisfies humans, the next category of need-syndromes in the hierarchy of prepotency emerges (Huizinga, 1970). The hierarchy of basic needs in prepotency starts with the physiological needs followed by safety needs, social needs, esteem needs, and self-actualization (Maslow, 1954). The physiological needs refer to the fulfillment of needs -including the needs for food, water, sleep, shelter, etc. - that serve to sustain the organism and provide convenience and enjoyment (Maslow, 1954). The safety needs include personal safety from medical to financial and physical (Maslow, 1954). The social needs are met when humans experience love, affection, and belongingness after gratifying physiological and safety needs. The esteem needs are defined as a desire for a stable, firmly based, high evaluation of humans themselves, "for self-respect, self-esteem, and for the esteem of others" (Maslow, 1954, p. 90). The

self-actualization needs can be achieved by fulfilling "the desire to become more and more what one is, to become everything that one is capable of becoming" (Maslow, 1954, p. 94).

The hierarchy of basic needs met while communicating can be interpreted as either deficiency or growth needs (Maslow, Birsh, Stein, & Honigman, 1945). The deficiency needs are concerned with needs for dependency on interpersonal or human-media communication in an inward manner. Individuals seek and meet physiological and safety needs by relying on supportive media or interpersonal dialogs. In addition, communication through mediated channels can assure that the individuals build belongingness, social connections, and love for others both emotionally and physically (Huizinga, 1970). Media research about need gratifications documents that enjoyment through entertainment seeking and social utility through information seeking are a self-determination process in which the audience fulfills intrinsic needs (Reiss & Wiltz, 2004; Tamborini, Bowman, Eden, Grizzard, & Organ, 2010).

The growth needs account for consequential aspects of the gratified deficiency needs in an outward manner. As individuals feel belongingness to the communication circle with safety and physiological satisfaction, they develop self-esteem and self-actualization (Huizinga, 1970). In other words, communicative practices can enhance individuals' mental growth in social circle (Macklin & Rossiter, 1976; Payne, 2007). In the case of media, media exposure triggers self-esteem when the media content, such as news and dramas, is supportive of the audience (Knobloch-Westerwick & Hastall, 2010) or meets audiences' entertainment needs (Chia & Yip, 2009). Therefore, deficiency needs are practical components of needs that individuals carry out, whereas growth needs meet the needs of self-actualization and self-esteem as a result of meeting physiological needs.

#### 4. The hierarchy of basic needs and the smartphone

The use of the smartphone for need gratifications received a fair amount of research attention due to its widespread diffusion and active use nature of the medium. In the view of active use, several commonalities existed between uses and gratifications research and the hierarchy of basic needs in mobile phone use, including the smartphone. Major motivations for mobile phone use were information and entertainment seeking, relationship development, security, and relaxation (Hostut, 2010; Wei, 2008).

This motivational communication perspective applied to smartphone use focuses mainly on "psychological aspects of individual differences for use and choice" (Rubin, 2009, p. 167). Uses and gratifications research on motivations for mobile phone use was focused on psychological needs and motives (e.g., entertainment, sociability, learning), content-specific motivations (e.g., safety service, financial service), and social communication (e.g., texting, calling, chatting) (Aoki & Downes, 2003; Ho & Syu, 2010).

Although both uses and gratifications theory and the hierarchy of basic needs discuss motivations, the latter fits the traits of the smartphone better than the former. Since the smartphone enables users to carry out tasks at the time of use, it is likely to allow users to experience self-actualization (e.g., confidence, capability) in an instant manner. The hierarchy of basic needs perspective delineates self-esteem and self-actualization, which are results of meeting deficiency needs. Therefore, the hierarchy of basic needs perspective relevantly addresses the characteristics of smartphone use.

## 4.1. The US and Korean smartphone environments

The US and Korea are similar and distinct in many ways, so this study focused on how these populations use the smartphone to Download English Version:

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